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1947

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ASTRONOMISCHES RECHENINSTITUT BERLIN · PROF. DR. A. KAHRSTEDT



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Vorwort

Vom Jahrgang 1916 an ist der fundamentale Meridian, auf den alle Angaben des Jahrbuchs bezogen sind, der Meridian von Greenwich.

Die Zeit ist vom Jahrgang 1925 an in Weltzeit, d. i. Bürgerliche Zeit Greenwich, ausgedrückt (siehe Erläuterungen).

Die Grundlagen des Berliner Astronomischen Jahrbuchs bilden:

Für die Sonne und die großen Planeten:

Die Tafeln von Newcomb und (für Jupiter und Saturn) von Hill, enthalten in:

Astronomical Papers of the American Ephemeris,
Vol. VI, Part I—IV: *Tables of the four inner planets,*
Vol. VII, Part I—IV: *Tables of Jupiter, Saturn, Uranus, Neptune.*

Als Sonnenhalbmesser in der mittleren Entfernung ist $16' 1''.50$ angenommen; dagegen liegt der Berechnung der Finsternisse der von Auwers in A. N., Bd. 128 gegebene Wert $15' 59''.63$ zugrunde.

Für den Mond:

Tables of the Motion of the Moon by Ernest W. Brown.

Der geozentrische Mondhalbmesser $r_☾$ ist aus der Äquatorial-Horizontalparallaxe $p_☾$ gerechnet nach der Formel

$$r_☾ = 0.272469\, p_☾ + 1''.50,$$

für die Finsternisse nach $\sin r_☾ = 0.272274 \sin p_☾$.

Als Neigung des Mondäquators gegen die Ekliptik ist nach F. Hayn (A. N. Bd. 199, 263) angenommen: $J = 1° 32' 20''$.

Für die Fixsterne:

Dritter Fundamentalkatalog des Berliner Astronomischen Jahrbuchs (Veröffentlichungen des Astronomischen Recheninstituts zu Berlin-Dahlem Nr. 54 und Abhandlungen der Preußischen Akademie der Wissenschaften Jahrgang 1938. Phys.-math. Klasse. Nr. 3).

Die Sterngrößen und Sternspektren sind dem »Henry Draper Catalogue (Harvard Annals, vol. 91—99)« entnommen.

Als Werte der fundamentalen Reduktionsgrößen sind angenommen:

Die Präzessions-Größen nach S. Newcomb (vgl. H. Andoyer, Bull. Astr. Bd. 28, S. 67)

Die Nutations-Konstante . . . . . 9".21

Die Nutations-Größen nach S. Newcomb (Bull. Astr. Bd. 15, S. 241)

Die Aberrations-Konstante . . . . 20".47

Die Sonnen-Parallaxe . . . . 8".80

Die Abplattung der Erde . . . . . . 1 : 297

Für die Satelliten:

Die Angaben über die 4 älteren Jupitertrabanten beruhen auf den Tafeln von R. A. Sampson (*Tables of the four great Satellites of Jupiter.* London 1910), die Angaben über die 8 älteren Saturnsatelliten auf den von H. und G. Struve sowie von J. Woltjer ermittelten Werten (Näheres s. Erläuterungen).

In allen Ephemeriden der Sonne, der Planeten und der Fixsterne sind die kurzperiodischen, von der Mondlänge abhängigen Nutationsglieder weggelassen; doch bietet das Jahrbuch die Möglichkeit, auch diese weggelassenen Glieder zu berücksichtigen (s. Erläuterungen).

Der Inhalt des Jahrbuchs hat gegen das Vorjahr einige Änderungen erfahren. Es mußten wegfallen die Ephemeride von Pluto sowie die Angaben über Sternbedeckungen. Auch die Ephemeride des Mondkraters Mösting A kann in diesem Jahrgang noch nicht gegeben werden.

Bezüglich der Zahlengrundlagen sei auf die im Berliner Jahrbuch für 1916 gegebene Darstellung der »Grundbegriffe der Sphärischen Astronomie« hingewiesen.

Ein Teil der Angaben wurde seitens des Nautical Almanac Office, London, zur Verfügung gestellt.

Die Leitung der Arbeiten am Astronomischen Jahrbuch für 1947 lag in den Händen von Prof. Dr. Kohl; an der Bearbeitung der verschiedenen Teile beteiligten sich außerdem die Herren Dr. Gondolatsch, Dr. Müller, Dr. Baehr, Dr. Rabe und mehrere Hilfsarbeiter.

Astronomisches Recheninstitut

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Zeit- und Festrechnung 1947

Das Jahr 1947 entspricht dem

Jahr 6660 der Julianischen Periode und dem
Jahr 7455—7456 der Byzantinischen Ära.

Gregorianischer Kalender

Goldene Zahl	10
Epakte	VIII
Sonnenzirkel	24
Sonntagsbuchstabe	E

Septuagesima	2. Febr.
Aschermittwoch	19. Febr.
I. Quatember	26. Febr.
Ostersonntag	6. April
Himmelfahrt	15. Mai
Pfingstsonntag	25. Mai
II. Quatember	28. Mai
III. Quatember	17. Sept.
I. Advent	30. Nov.
IV. Quatember	17. Dez.

Dimensionen der Erde

a) Nach Bessel (1841)

Große Halbachse	a = 6 377 397.155 m	log a = 6.804 6434 637
Kleine Halbachse	b = 6 356 078.963 m	log b = 6.803 1892 839
Abplattung	α = 1: 299.152 8129	log α = 7.524 1069 092—10
Meridianquadrant	= 10 000 855.76 m	

Die Maßeinheit der Länge ist das legale Meter

b) Nach Hayford (1909)

Große Halbachse	a = 6 378 388 m	log a = 6.804 7109 340
Kleine Halbachse	b = 6 356 911.946 m	log b = 6.803 2461 957
Abplattung	α = 1: 297	log α = 7.527 2435 507—10
Meridianquadrant	= 10 002 288.30 m	

Die Maßeinheit der Länge ist das internationale Meter.

Ein internationales Meter = 1.000 0133 legales Meter.

Normalwert für die Schwerebeschleunigung im Meeresniveau:

$\gamma_0 = 978.030\ (1 + 0.005302 \cdot \sin^2\varphi - 0.000007 \cdot \sin^2 2\varphi)$ cm. sec^{-2}. (Helmert 1901)

$\gamma_0 = 978.0490\ (1 + 0.0052884 \cdot \sin^2\varphi - 0.0000059 \cdot \sin^2 2\varphi)$ cm. sec^{-2}. (Cassinis 1930)

Masse der Erde: $5.974 \cdot 10^{27}$ g

Masse der Sonne: $1.983 \cdot 10^{33}$ g

Radius der Sonne: 695 300 km

Mittlere Entfernung Erde—Sonne: 149 504 200 km

Lichtzeit für die mittlere Entfernung Erde—Sonne: $498^s.72$ (mit Lichtgeschwindigkeit 299 774 km/sec.)

Astronomische Konstanten

Allgemeine Präzession	$\psi = 50.''2564$	$+\ 0.''000\,222\ t$
Präzession in Rektaszension	$m = 3.^{s}07234$	$+\ 0.^{s}000\,0186\ t$
Präzession in Deklination	$n = 20.''0468$	$-\ 0.''000\,085\ t$
Mittlere Schiefe der Ekliptik	$\epsilon = 23°\,27'\,8.''26$	$-\ 0.''4684\ t$
Länge d. aufsteig. Knotens d. bewegl. a. d. festen Ekliptik	$\Pi = 173°\,57'\,3.''6$	$+\ 32.''862\ t$
Winkel zwischen fester u. bewegl. Ekliptik . .	$\pi = 0.''4711$	$-\ 0.''000\,007\ t$

	d	d
Länge des tropischen Jahres	365.242 198 79	— 0.000 000 0614 t
„ „ siderischen „	365.256 360 42	+ 0.000 000 0011 t
„ „ anomalistischen „	365.259 641 34	+ 0.000 000 0304 t
„ „ julianischen „	365.25	

t = Zeit seit 1900 in julianischen Jahren

	d
Länge des synodischen Monats	29.530 588
„ „ tropischen „	27.321 582
„ „ siderischen „	27.321 661
„ „ anomalistischen „	27.554 550

Länge des mittl. Sonnentages = $24^{h}\,3^{m}\,56.^{s}555$ Sternzeit = 1,002 737 91 Sterntag

Länge d. mittl. Sterntages = $23^{h}\,56^{m}\,4.^{s}091$ mittl. Zeit = 0.997 269 57 mittl. Sonnentag

Äquatoreal-Horizontalparallaxe des Mondes . . . . $57'\,2.''70$

Gravitationskonstante nach Gauß $k = 0.017\,202\,099 = 3548.''18761$

$\log k = 8.235\,581\,44 - 10$, $\log k'' = 3.550\,006\,57$

1 Lichtjahr = 63 275 Astr. Einh. = 0.3068 Parsek = $9.460 \cdot 10^{12}$ km

1 Parsek = 206 264.806 Astr. Einh. = 3.2598 Lichtjahre = $30.84 \cdot 10^{12}$ km

Elemente der Planetenbahnen für 1947 Jan. 0, 0^{h} Weltzeit

	☊	i	$\tilde{\omega}$	e
	°	°	°	
Merkur	47.703	7.004	76.630	0.205 624
Venus	76.203	3.394	130.825	0.006 799
Erde	—	—	102.029	0.016 732
Mars	49.149	1.850	335.083	0.093 356
Jupiter	99.918	1.306	13.478	0.048 412
Saturn	113.200	2.491	92.018	0.055 730
Uranus	73.712	0.773	172.247	0.046 332
Neptun	131.198	1.775	47.398	0.009 000
Pluto	109.633	17.144	223.175	0.248 644

	a	L	$n_{sid.}$	$P_{sid.}$	
		°	°	a	d
Merkur	0.387 099	225.876	4.092 34	0	87.9693
Venus	0.723 332	124.793	1.602 13	0	224.7008
Erde	1.000 000	98.826	0.985 61	1	0.0142
Mars	1.523 688	289.691	0.524 03	1	321.7375
Jupiter	5.202 561	225.007	0.083 09	11	314.925
Saturn	9.554 747	121.573	0.033 46	29	167.21
Uranus	19.218 14	86.219	0.011 73	84	8.11
Neptun	30.109 57	187.798	0.005 98	164	281.6
Pluto	39.517 74	161.226	0.003 97	248	157

Merkur bis Mars nach Newcomb, Jupiter bis Neptun nach Leverrier und Gaillot, Pluto nach Bower. Für Pluto sind baryzentrische Elemente bezogen auf Ekliptik und mittleres Äquinoktium 1950.0 gegeben.

Astronomische Zeichen und Abkürzungen

Bezeichnung der Wochentage	Adspekten
☉ Sonntag	☌ Konjunktion
☾ Montag	□ Quadratur
♂ Dienstag	☍ Opposition
☿ Mittwoch	**Mondphasen**
♃ Donnerstag	● Neumond
♀ Freitag	☽ Erstes Viertel
♄ Sonnabend	○ Vollmond
	☾ Letztes Viertel

☊ Aufsteigender } Knoten
☋ Absteigender }

Zeichen des Tierkreises und der Himmelskörper

♈ Widder	0	Grad		
♉ Stier	30	»	☉	Sonne
♊ Zwillinge . . .	60	»	☾	Mond
♋ Krebs	90	»	☿	Merkur
♌ Löwe	120	»	♀	Venus
♍ Jungfrau	150	»	♁	Erde
♎ Waage	180	»	♂	Mars
♏ Skorpion . . .	210	»	♃	Jupiter
♐ Schütze	240	»	♄	Saturn
♑ Steinbock . . .	270	»	♅	Uranus
♒ Wassermann . .	300	»	♆	Neptun
♓ Fische	330	»		

Sonne, Mond, Große Planeten

1947

Tag		Wochentag	0h Weltzeit: Zeitgleichung (Wahre Zeit *minus* Mittlere Zeit)	Diff.	Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Halbe Durchgangs Dauer St.-Zt.	Halbmesser
1947			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Jan.	0	Di	— 2 39.47	28.81	18 37 55.41	4 25.37	—23 9 38.4	4 14.4	71.12	16 17.83
	1	Mi	3 8.28	28.49	18 42 20.78	4 25.04	23 5 24.0	4 42.2	71.08	16 17.85
	2	Do	3 36.77	28.15	18 46 45.82	4 24.71	23 0 41.8	5 9.7	71.04	16 17.87
	3	Fr	4 4.92	27.78	18 51 10.53	4 24.34	22 55 32.1	5 37.0	71.00	16 17.87
	4	Sa	4 32.70	27.39	18 55 34.87	4 23.95	22 49 55.1	6 4.2	70.95	16 17.88
	5	So	5 0.09	26.96	18 59 58.82	4 23.52	22 43 50.9	6 31.3	70.89	16 17.88
	6	Mo	— 5 27.05	26.52	19 4 22.34	4 23.07	—22 37 19.6	6 58.0	70.83	16 17.87
	7	Di	5 53.57	26.05	19 8 45.41	4 22.61	22 30 21.6	7 24.7	70.77	16 17.85
	8	Mi	6 19.62	25.56	19 13 8.02	4 22.12	22 22 56.9	7 51.1	70.71	16 17.83
	9	Do	6 45.18	25.05	19 17 30.14	4 21.61	22 15 5.8	8 17.2	70.64	16 17.80
	10	Fr	7 10.23	24.53	19 21 51.75	4 21.09	22 6 48.6	8 43.3	70.57	16 17.76
	11	Sa	7 34.76	23.97	19 26 12.84	4 20.53	21 58 5.3	9 8.9	70.49	16 17.72
	12	So	— 7 58.73	23.41	19 30 33.37	4 19.96	—21 48 56.4	9 34.3	70.42	16 17.68
	13	Mo	8 22.14	22.81	19 34 53.33	4 19.37	21 39 22.1	9 59.6	70.33	16 17.62
	14	Di	8 44.95	22.20	19 39 12.70	4 18.76	21 29 22.5	10 24.4	70.25	16 17.56
	15	Mi	9 7.15	21.56	19 43 31.46	4 18.12	21 18 58.1	10 49.1	70.16	16 17.50
	16	Do	9 28.71	20.91	19 47 49.58	4 17.46	21 8 9.0	11 13.4	70.07	16 17.43
	17	Fr	9 49.62	20.23	19 52 7.04	4 16.79	20 56 55.6	11 37.4	69.97	16 17.36
	18	Sa	—10 9.85	19.54	19 56 23.83	4 16.10	—20 45 18.2	12 1.1	69.88	16 17.28
	19	So	10 29.39	18.83	20 0 39.93	4 15.39	20 33 17.1	12 24.5	69.78	16 17.20
	20	Mo	10 48.22	18.10	20 4 55.32	4 14.65	20 20 52.6	12 47.6	69.68	16 17.11
	21	Di	11 6.32	17.35	20 9 9.97	4 13.91	20 8 5.0	13 10.2	69.58	16 17.03
	22	Mi	11 23.67	16.59	20 13 23.88	4 13.15	19 54 54.8	13 32.5	69.47	16 16.94
	23	Do	11 40.26	15.82	20 17 37.03	4 12.37	19 41 22.3	13 54.5	69.37	16 16.85
	24	Fr	—11 56.08	15.03	20 21 49.40	4 11.59	—19 27 27.8	14 16.0	69.26	16 16.75
	25	Sa	12 11.11	14.22	20 26 0.99	4 10.78	19 13 11.8	14 37.3	69.15	16 16.64
	26	So	12 25.33	13.41	20 30 11.77	4 9.97	18 58 34.5	14 58.1	69.04	16 16.54
	27	Mo	12 38.74	12.60	20 34 21.74	4 9.15	18 43 36.4	15 18.5	68.92	16 16.43
	28	Di	12 51.34	11.76	20 38 30.89	4 8.32	18 28 17.9	15 38.5	68.81	16 16.31
	29	Mi	13 3.10	10.93	20 42 39.21	4 7.49	18 12 39.4	15 58.1	68.70	16 16.19
	30	Do	—13 14.03	10.09	20 46 46.70	4 6.65	—17 56 41.3	16 17.3	68.59	16 16.07
	31	Fr	13 24.12	9.25	20 50 53.35	4 5.80	17 40 24.0	16 36.0	68.47	16 15.94
Febr.	1	Sa	13 33.37	8.41	20 54 59.15	4 4.97	17 23 48.0	16 54.5	68.36	16 15.81
	2	So	13 41.78	7.58	20 59 4.12	4 4.13	17 6 53.5	17 12.4	68.24	16 15.68
	3	Mo	13 49.36	6.75	21 3 8.25	4 3.30	16 49 41.1	17 29.9	68.12	16 15.54
	4	Di	13 56.11	5.92	21 7 11.55	4 2.48	16 32 11.2	17 47.2	68.01	16 15.39
	5	Mi	—14 2.03	5.10	21 11 14.03	4 1.66	—16 14 24.0	18 3.9	67.89	16 15.24
	6	Do	14 7.13	4.30	21 15 15.69	4 0.86	15 56 20.1	18 20.3	67.78	16 15.08
	7	Fr	14 11.43	3.50	21 19 16.55	4 0.05	15 37 59.8	18 36.3	67.67	16 14.91
	8	Sa	14 14.93	2.72	21 23 16.60	3 59.27	15 19 23.5	18 51.9	67.55	16 14.74
	9	So	14 17.65	1.93	21 27 15.87	3 58.49	15 0 31.6	19 7.1	67.44	16 14.57
	10	Mo	—14 19.58		21 31 14.36		—14 41 24.5		67.33	16 14.39

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	kurzp. Gl.	Mittleres Äquinoktium 1947.0 Länge		Breite	R		Aufgang in +50° Breite, 0h Länge	Untergang
1947	2432	h m s	s in 0,001		° ′ ″	′ ″	in ″ 0,01			h m	h m
Jan. 0	185.5	6 35 15.937	−960	− 5	278 43 14.8	61 9.1	−20	0.983 3007	205	7 59	16 7
1	186.5	6 39 12.496	957	−12	279 44 23.9	61 9.0	−12	0.983 2802	153	7 59	16 8
2	187.5	6 43 9.054	954	−17	280 45 32.9	61 8.8	− 2	0.983 2649	96	7 59	16 9
3	188.5	6 47 5.613	950	−18	281 46 41.7	61 8.5	+10	0.983 2553	37	7 59	16 10
4	189.5	6 51 2.171	947	−17	282 47 50.2	61 8.2	+23	0.983 2516	25	7 59	16 11
5	190.5	6 54 58.730	944	−11	283 48 58.4	61 7.9	+38	0.983 2541	89	7 58	16 12
6	191.5	6 58 55.288	−941	− 3	284 50 6.3	61 7.8	+52	0.983 2630	155	7 58	16 14
7	192.5	7 2 51.846	939	+ 5	285 51 14.1	61 7.6	+65	0.983 2785	223	7 58	16 15
8	193.5	7 6 48.404	936	+12	286 52 21.7	61 7.5	+76	0.983 3008	289	7 58	16 16
9	194.5	7 10 44.963	933	+17	287 53 29.2	61 7.4	+85	0.983 3297	354	7 57	16 17
10	195.5	7 14 41.521	930	+18	288 54 36.6	61 7.4	+91	0.983 3651	417	7 57	16 19
11	196.5	7 18 38.079	928	+16	289 55 44.0	61 7.3	+93	0.983 4068	476	7 56	16 20
12	197.5	7 22 34.636	−925	+10	290 56 51.3	61 7.2	+92	0.983 4544	533	7 56	16 21
13	198.5	7 26 31.194	922	+ 4	291 57 58.5	61 7.2	+88	0.983 5077	587	7 55	16 23
14	199.5	7 30 27.752	920	− 2	292 59 5.7	61 7.0	+82	0.983 5664	637	7 54	16 24
15	200.5	7 34 24.310	918	− 6	294 0 12.7	61 6.9	+74	0.983 6301	684	7 54	16 26
16	201.5	7 38 20.867	915	− 9	295 1 19.6	61 6.6	+64	0.983 6985	730	7 53	16 27
17	202.5	7 42 17.425	913	− 9	296 2 26.2	61 6.4	+52	0.983 7715	773	7 52	16 28
18	203.5	7 46 13.983	−911	− 7	297 3 32.6	61 5.9	+39	0.983 8488	814	7 51	16 30
19	204.5	7 50 10.540	909	− 4	298 4 38.5	61 5.6	+27	0.983 9302	853	7 50	16 31
20	205.5	7 54 7.098	907	0	299 5 44.1	61 5.0	+15	0.984 0155	891	7 49	16 33
21	206.5	7 58 3.655	905	+ 4	300 6 49.1	61 4.4	+ 4	0.984 1046	928	7 48	16 35
22	207.5	8 2 0.212	903	+ 7	301 7 53.5	61 3.8	− 6	0.984 1974	963	7 47	16 36
23	208.5	8 5 56.769	901	+ 9	302 8 57.3	61 3.0	−14	0.984 2937	999	7 46	16 38
24	209.5	8 9 53.326	−900	+ 9	303 10 0.3	61 2.1	−19	0.984 3936	1035	7 45	16 39
25	210.5	8 13 49.883	898	+ 7	304 11 2.4	61 1.1	−22	0.984 4971	1070	7 44	16 41
26	211.5	8 17 46.440	897	+ 3	305 12 3.5	61 0.2	−21	0.984 6041	1107	7 43	16 43
27	212.5	8 21 42.997	895	− 3	306 13 3.7	60 59.0	−17	0.984 7148	1145	7 42	16 44
28	213.5	8 25 39.553	894	− 9	307 14 2.7	60 57.9	−11	0.984 8293	1186	7 40	16 46
29	214.5	8 29 36.110	893	−14	308 15 0.6	60 56.6	− 2	0.984 9479	1228	7 39	16 48
30	215.5	8 33 32.666	−892	−18	309 15 57.2	60 55.3	+ 8	0.985 0707	1274	7 38	16 49
31	216.5	8 37 29.223	891	−17	310 16 52.5	60 54.0	+21	0.985 1981	1322	7 37	16 51
Febr. 1	217.5	8 41 25.779	890	−13	311 17 46.5	60 52.6	+35	0.985 3303	1373	7 35	16 53
2	218.5	8 45 22.335	889	− 7	312 18 39.1	60 51.4	+48	0.985 4676	1427	7 34	16 55
3	219.5	8 49 18.891	888	+ 1	313 19 30.5	60 50.0	+60	0.985 6103	1483	7 32	16 56
4	220.5	8 53 15.447	888	+ 9	314 20 20.5	60 48.8	+71	0.985 7586	1539	7 31	16 58
5	221.5	8 57 12.003	−887	+15	315 21 9.3	60 47.5	+80	0.985 9125	1598	7 29	17 0
6	222.5	9 1 8.559	887	+17	316 21 56.8	60 46.4	+86	0.986 0723	1655	7 28	17 1
7	223.5	9 5 5.114	887	+16	317 22 43.2	60 45.2	+89	0.986 2378	1712	7 26	17 3
8	224.5	9 9 1.670	886	+12	318 23 28.4	60 44.1	+88	0.986 4090	1765	7 25	17 5
9	225.5	9 12 58.225	886	+ 6	319 24 12.5	60 43.1	+85	0.986 5855	1815	7 23	17 7
10	226.5	9 16 54.781	−886	0	320 24 55.6		+79	0.986 7670		7 21	17 8

Tag		Wochentag	0ʰ Weltzeit: Zeitgleichung (Wahre Zeit *minus* Mittlere Zeit)		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1947			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Febr.	10	Mo	−14 19.58	1.17	21 31 14.36	3 57.73	−14 41 24.5	19 21.9	67.33	16 14.39
	11	Di	14 20.75	0.41	21 35 12.09	3 56.96	14 22 2.6	19 36.3	67.22	16 14.21
	12	Mi	14 21.16	0.34	21 39 9.05	3 56.22	14 2 26.3	19 50.3	67.11	16 14.03
	13	Do	14 20.82	1.08	21 43 5.27	3 55.47	13 42 36.0	20 4.0	67.00	16 13.83
	14	Fr	14 19.74	1.82	21 47 0.74	3 54.74	13 22 32.0	20 17.1	66.89	16 13.63
	15	Sa	14 17.92	2.54	21 50 55.48	3 54.02	13 2 14.9	20 29.8	66.79	16 13.43
	16	So	−14 15.38	3.25	21 54 49.50	3 53.30	−12 41 45.1	20 42.2	66.68	16 13.24
	17	Mo	14 12.13	3.95	21 58 42.80	3 52.60	12 21 2.9	20 54.2	66.58	16 13.03
	18	Di	14 8.18	4.64	22 2 35.40	3 51.92	12 0 8.7	21 5.6	66.48	16 12.82
	19	Mi	14 3.54	5.32	22 6 27.32	3 51.23	11 39 3.1	21 16.8	66.38	16 12.61
	20	Do	13 58.22	6.00	22 10 18.55	3 50.56	11 17 46.3	21 27.4	66.28	16 12.40
	21	Fr	13 52.22	6.65	22 14 9.11	3 49.90	10 56 18.9	21 37.5	66.18	16 12.18
	22	Sa	−13 45.57	7.31	22 17 59.01	3 49.25	−10 34 41.4	21 47.4	66.09	16 11.97
	23	So	13 38.26	7.94	22 21 48.26	3 48.61	10 12 54.0	21 56.9	66.00	16 11.75
	24	Mo	13 30.32	8.56	22 25 36.87	3 47.99	9 50 57.1	22 5.7	65.91	16 11.53
	25	Di	13 21.76	9.17	22 29 24.86	3 47.38	9 28 51.4	22 14.2	65.82	16 11.31
	26	Mi	13 12.59	9.78	22 33 12.24	3 46.78	9 6 37.2	22 22.3	65.74	16 11.09
	27	Do	13 2.81	10.35	22 36 59.02	3 46.20	8 44 14.9	22 29.9	65.65	16 10.86
	28	Fr	−12 52.46	10.92	22 40 45.22	3 45.63	− 8 21 45.0	22 37.2	65.57	16 10.63
März	1	Sa	12 41.54	11.46	22 44 30.85	3 45.09	7 59 7.8	22 44.0	65.49	16 10.41
	2	So	12 30.08	12.00	22 48 15.94	3 44.56	7 36 23.8	22 50.5	65.41	16 10.17
	3	Mo	12 18.08	12.50	22 52 0.50	3 44.05	7 13 33.3	22 56.5	65.34	16 9.94
	4	Di	12 5.58	12.99	22 55 44.55	3 43.57	6 50 36.8	23 2.2	65.27	16 9.69
	5	Mi	11 52.59	13.45	22 59 28.12	3 43.10	6 27 34.6	23 7.4	65.20	16 9.46
	6	Do	−11 39.14	13.88	23 3 11.22	3 42.67	− 6 4 27.2	23 12.4	65.13	16 9.21
	7	Fr	11 25.26	14.30	23 6 53.89	3 42.26	5 41 14.8	23 16.9	65.07	16 8.96
	8	Sa	11 10.96	14.69	23 10 36.15	3 41.86	5 17 57.9	23 21.2	65.01	16 8.71
	9	So	10 56.27	15.06	23 14 18.01	3 41.49	4 54 36.7	23 25.0	64.96	16 8.45
	10	Mo	10 41.21	15.41	23 17 59.50	3 41.15	4 31 11.7	23 28.5	64.90	16 8.19
	11	Di	10 25.80	15.73	23 21 40.65	3 40.82	4 7 43.2	23 31.7	64.85	16 7.93
	12	Mi	−10 10.07	16.03	23 25 21.47	3 40.53	− 3 44 11.5	23 34.4	64.80	16 7.66
	13	Do	9 54.04	16.31	23 29 2.00	3 40.24	3 20 37.1	23 36.9	64.76	16 7.40
	14	Fr	9 37.73	16.57	23 32 42.24	3 39.98	2 57 0.2	23 38.9	64.72	16 7.13
	15	Sa	9 21.16	16.81	23 36 22.22	3 39.74	2 33 21.3	23 40.5	64.68	16 6.86
	16	So	9 4.35	17.03	23 40 1.96	3 39.53	2 9 40.8	23 41.9	64.64	16 6.59
	17	Mo	8 47.32	17.23	23 43 41.49	3 39.32	1 45 58.9	23 42.9	64.61	16 6.31
	18	Di	− 8 30.09	17.41	23 47 20.81	3 39.14	− 1 22 16.0	23 43.4	64.58	16 6.04
	19	Mi	8 12.68	17.58	23 50 59.95	3 38.98	0 58 32.6	23 43.6	64.55	16 5.77
	20	Do	7 55.10	17.72	23 54 38.93	3 38.83	0 34 49.0	23 43.4	64.52	16 5.49
	21	Fr	7 37.38	17.85	23 58 17.76	3 38.70	− 0 11 5.6	23 42.9	64.50	16 5.22
	22	Sa	7 19.53	17.96	0 1 56.46	3 38.60	+ 0 12 37.3	23 41.9	64.48	16 4.94
	23	So	− 7 1.57		0 5 35.06		+ 0 36 19.2		64.47	16 4.67

Tag	0h Weltzeit									Auf-gang	Unter-gang
	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1947.0 Länge		Mittleres Äquinoktium 1947.0 Breite	*R*		in {+50° Breite 0h Länge	
1947	2432	h m s	s in 0.001		° ′ ″	′ ″	″ in 0.01			h m	h m
Febr. 10	226.5	9 16 54.781	−886	0	320 24 55.6	60 42.0	+79	0.986 7670	1863	7 21	17 8
11	227.5	9 20 51.336	887	− 5	321 25 37.6	60 40.9	+70	0.986 9533	1906	7 19	17 10
12	228.5	9 24 47.891	887	− 9	322 26 18.5	60 39.8	+60	0.987 1439	1948	7 18	17 12
13	229.5	9 28 44.446	887	− 9	323 26 58.3	60 38.6	+48	0.987 3387	1985	7 16	17 14
14	230.5	9 32 41.001	888	− 8	324 27 36.9	60 37.5	+36	0.987 5372	2020	7 14	17 15
15	231.5	9 36 37.556	888	− 5	325 28 14.4	60 36.3	+23	0.987 7392	2052	7 12	17 17
16	232.5	9 40 34.111	−889	− 1	326 28 50.7	60 35.0	+11	0.987 9444	2081	7 11	17 19
17	233.5	9 44 30.665	889	+ 3	327 29 25.7	60 33.7	0	0.988 1525	2109	7 9	17 20
18	234.5	9 48 27.220	890	+ 7	328 29 59.4	60 32.3	− 9	0.988 3634	2134	7 7	17 22
19	235.5	9 52 23.775	891	+ 9	329 30 31.7	60 30.9	−17	0.988 5768	2155	7 5	17 24
20	236.5	9 56 20.329	892	+10	330 31 2.6	60 29.3	−23	0.988 7923	2177	7 3	17 26
21	237.5	10 0 16.883	893	+ 9	331 31 31.9	60 27.8	−27	0.989 0100	2196	7 1	17 27
22	238.5	10 4 13.438	−894	+ 5	332 31 59.7	60 26.1	−28	0.989 2296	2215	6 59	17 29
23	239.5	10 8 9.992	895	0	333 32 25.8	60 24.3	−25	0.989 4511	2235	6 57	17 31
24	240.5	10 12 6.546	896	− 6	334 32 50.1	60 22.4	−19	0.989 6746	2253	6 55	17 32
25	241.5	10 16 3.100	898	−12	335 33 12.5	60 20.6	−11	0.989 8999	2274	6 53	17 34
26	242.5	10 19 59.654	899	−16	336 33 33.1	60 18.6	− 1	0.990 1273	2296	6 52	17 36
27	243.5	10 23 56.208	900	−17	337 33 51.7	60 16.5	+11	0.990 3569	2320	6 50	17 37
28	244.5	10 27 52.762	−902	−14	338 34 8.2	60 14.5	+24	0.990 5889	2346	6 48	17 39
März 1	245.5	10 31 49.315	903	− 9	339 34 22.7	60 12.4	+38	0.990 8235	2376	6 45	17 41
2	246.5	10 35 45.869	905	− 1	340 34 35.1	60 10.3	+50	0.991 0611	2407	6 43	17 42
3	247.5	10 39 42.423	907	+ 6	341 34 45.4	60 8.3	+61	0.991 3018	2442	6 41	17 44
4	248.5	10 43 38.976	909	+12	342 34 53.7	60 6.2	+70	0.991 5460	2477	6 39	17 46
5	249.5	10 47 35.530	910	+16	343 34 59.9	60 4.2	+75	0.991 7937	2515	6 37	17 47
6	250.5	10 51 32.083	−912	+16	344 35 4.1	60 2.3	+78	0.992 0452	2553	6 35	17 49
7	251.5	10 55 28.637	914	+12	345 35 6.4	60 0.3	+78	0.992 3005	2590	6 33	17 51
8	252.5	10 59 25.190	916	+ 7	346 35 6.7	59 58.6	+75	0.992 5595	2626	6 31	17 52
9	253.5	11 3 21.744	918	+ 1	347 35 5.3	59 56.8	+69	0.992 8221	2659	6 29	17 54
10	254.5	11 7 18.297	920	− 4	348 35 2.1	59 55.1	+61	0.993 0880	2690	6 27	17 56
11	255.5	11 11 14.850	922	− 8	349 34 57.2	59 53.3	+51	0.993 3570	2718	6 24	17 57
12	256.5	11 15 11.403	−925	−10	350 34 50.5	59 51.7	+38	0.993 6288	2743	6 22	17 59
13	257.5	11 19 7.957	927	− 9	351 34 42.2	59 50.0	+25	0.993 9031	2764	6 20	18 0
14	258.5	11 23 4.510	929	− 6	352 34 32.2	59 48.2	+13	0.994 1795	2783	6 18	18 2
15	259.5	11 27 1.063	931	− 2	353 34 20.4	59 46.6	0	0.994 4578	2798	6 16	18 4
16	260.5	11 30 57.616	933	+ 2	354 34 7.0	59 44.8	−11	0.994 7376	2810	6 14	18 5
17	261.5	11 34 54.169	935	+ 6	355 33 51.8	59 43.1	−21	0.995 0186	2820	6 12	18 7
18	262.5	11 38 50.722	−938	+ 9	356 33 34.9	59 41.3	−30	0.995 3006	2826	6 9	18 8
19	263.5	11 42 47.276	940	+10	357 33 16.2	59 39.5	−36	0.995 5832	2830	6 7	18 10
20	264.5	11 46 43.829	942	+ 9	358 32 55.7	59 37.7	−39	0.995 8662	2830	6 5	18 12
21	265.5	11 50 40.382	944	+ 7	359 32 33.4	59 35.7	−39	0.996 1492	2828	6 3	18 13
22	266.5	11 54 36.935	947	+ 2	0 32 9.1	59 33.7	−36	0.996 4320	2825	6 1	18 15
23	267.5	11 58 33.488	−949	− 4	1 31 42.8		−31	0.996 7145		5 59	18 16

Sonne 1947

Tag		Wochentag	Zeitgleichung Wahre Zeit *minus* Mittlere Zeit	Diff.	Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
			0h Weltzeit							
1947			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
März	23	So	— 7 1.57	18.05	0 5 35.06	3 38.50	+ 0 36 19.2	23 40.6	64.47	16 4.67
	24	Mo	6 43.52	18.13	0 9 13.56	3 38.42	0 59 59.8	23 38.8	64.46	16 4.39
	25	Di	6 25.39	18.19	0 12 51.98	3 38.36	1 23 38.6	23 36.7	64.45	16 4.12
	26	Mi	6 7.20	18.24	0 16 30.34	3 38.32	1 47 15.3	23 34.2	64.44	16 3.85
	27	Do	5 48.96	18.27	0 20 8.66	3 38.29	2 10 49.5	23 31.3	64.44	16 3.58
	28	Fr	5 30.69	18.27	0 23 46.95	3 38.28	2 34 20.8	23 28.1	64.44	16 3.31
	29	Sa	— 5 12.42	18.26	0 27 25.23	3 38.29	+ 2 57 48.9	23 24.5	64.44	16 3.04
	30	So	4 54.16	18.23	0 31 3.52	3 38.32	3 21 13.4	23 20.4	64.45	16 2.77
	31	Mo	4 35.93	18.19	0 34 41.84	3 38.37	3 44 33.8	23 16.1	64.46	16 2.50
April	1	Di	4 17.74	18.11	0 38 20.21	3 38.44	4 7 49.9	23 11.5	64.47	16 2.23
	2	Mi	3 59.63	18.02	0 41 58.65	3 38.54	4 31 1.4	23 6.4	64.49	16 1.96
	3	Do	3 41.61	17.90	0 45 37.19	3 38.65	4 54 7.8	23 1.1	64.51	16 1.68
	4	Fr	— 3 23.71	17.76	0 49 15.84	3 38.79	+ 5 17 8.9	22 55.5	64.53	16 1.41
	5	Sa	3 5.95	17.60	0 52 54.63	3 38.95	5 40 4.4	22 49.5	64.55	16 1.14
	6	So	2 48.35	17.42	0 56 33.58	3 39.14	6 2 53.9	22 43.2	64.57	16 0.86
	7	Mo	2 30.93	17.21	1 0 12.72	3 39.34	6 25 37.1	22 36.7	64.60	16 0.59
	8	Di	2 13.72	16.99	1 3 52.06	3 39.57	6 48 13.8	22 29.7	64.63	16 0.31
	9	Mi	1 56.73	16.74	1 7 31.63	3 39.81	7 10 43.5	22 22.5	64.66	16 0.03
	10	Do	— 1 39.99	16.47	1 11 11.44	3 40.08	+ 7 33 6.0	22 14.9	64.70	15 59.75
	11	Fr	1 23.52	16.19	1 14 51.52	3 40.37	7 55 20.9	22 7.0	64.74	15 59.48
	12	Sa	1 7.33	15.88	1 18 31.89	3 40.67	8 17 27.9	21 58.8	64.78	15 59.20
	13	So	0 51.45	15.57	1 22 12.56	3 40.99	8 39 26.7	21 50.3	64.82	15 58.92
	14	Mo	0 35.88	15.23	1 25 53.55	3 41.32	9 1 17.0	21 41.5	64.87	15 58.64
	15	Di	0 20.65	14.88	1 29 34.87	3 41.67	9 22 58.5	21 32.2	64.92	15 58.37
	16	Mi	— 0 5.77	14.51	1 33 16.54	3 42.05	+ 9 44 30.7	21 22.6	64.97	15 58.10
	17	Do	+ 0 8.74	14.13	1 36 58.59	3 42.42	10 5 53.3	21 12.7	65.02	15 57.82
	18	Fr	0 22.87	13.74	1 40 41.01	3 42.81	10 27 6.0	21 2.5	65.07	15 57.55
	19	Sa	0 36.61	13.33	1 44 23.82	3 43.22	10 48 8.5	20 51.9	65.13	15 57.29
	20	So	0 49.94	12.92	1 48 7.04	3 43.64	11 9 0.4	20 40.9	65.19	15 57.02
	21	Mo	1 2.86	12.50	1 51 50.68	3 44.06	11 29 41.3	20 29.6	65.25	15 56.76
	22	Di	+ 1 15.36	12.07	1 55 34.74	3 44.49	+11 50 10.9	20 17.9	65.32	15 56.50
	23	Mi	1 27.43	11.62	1 59 19.23	3 44.93	12 10 28.8	20 5.9	65.38	15 56.24
	24	Do	1 39.05	11.17	2 3 4.16	3 45.38	12 30 34.7	19 53.5	65.45	15 55.99
	25	Fr	1 50.22	10.72	2 6 49.54	3 45.83	12 50 28.2	19 40.7	65.52	15 55.74
	26	Sa	2 0.94	10.26	2 10 35.37	3 46.30	13 10 8.9	19 27.6	65.59	15 55.49
	27	So	2 11.20	9.78	2 14 21.67	3 46.77	13 29 36.5	19 14.1	65.66	15 55.25
	28	Mo	+ 2 20.98	9.30	2 18 8.44	3 47.26	+13 48 50.6	19 0.4	65.73	15 55.01
	29	Di	2 30.28	8.80	2 21 55.70	3 47.75	14 7 51.0	18 46.3	65.80	15 54.77
	30	Mi	2 39.08	8.30	2 25 43.45	3 48.26	14 26 37.3	18 32.0	65.88	15 54.53
Mai	1	Do	2 47.38	7.79	2 29 31.71	3 48.77	14 45 9.3	18 17.3	65.95	15 54.29
	2	Fr	2 55.17	7.26	2 33 20.48	3 49.30	15 3 26.6	18 2.2	66.03	15 54.06
	3	Sa	+ 3 2.43		2 37 9.78		+15 21 28.8		66.10	15 53.82

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl	Mittleres Äquinoktium 1947.0 Länge		Breite	R		Aufgang (in +50° Breite, 0h Länge)	Untergang (in +50° Breite, 0h Länge)
1947	2432	h m s	s in 0.001		° ′ ″	′ ″	″ in 0.01			h m	h m
März 23	267.5	11 58 33.488	−949	−4	1 31 42.8	59 31.7	−31	0.996 7145	2819	5 59	18 16
24	268.5	12 2 30.041	951	−10	2 31 14.5	59 29.6	−25	0.996 9964	2813	5 56	18 18
25	269.5	12 6 26.594	954	−15	3 30 44.1	59 27.4	−15	0.997 2777	2808	5 54	18 19
26	270.5	12 10 23.147	956	−16	4 30 11.5	59 25.2	−3	0.997 5585	2803	5 52	18 21
27	271.5	12 14 19.700	958	−15	5 29 36.7	59 22.8	+10	0.997 8388	2801	5 50	18 23
28	272.5	12 18 16.253	960	−10	6 28 59.5	59 20.5	+23	0.998 1189	2800	5 48	18 24
29	273.5	12 22 12.806	−962	−3	7 28 20.0	59 18.2	+35	0.998 3989	2802	5 46	18 26
30	274.5	12 26 9.360	965	+5	8 27 38.2	59 15.8	+46	0.998 6791	2806	5 43	18 27
31	275.5	12 30 5.913	967	+11	9 26 54.0	59 13.5	+55	0.998 9597	2813	5 41	18 29
April 1	276.5	12 34 2.466	969	+15	10 26 7.5	59 11.1	+61	0.999 2410	2822	5 39	18 30
2	277.5	12 37 59.020	971	+16	11 25 18.6	59 8.9	+64	0.999 5232	2833	5 37	18 32
3	278.5	12 41 55.573	973	+13	12 24 27.5	59 6.6	+64	0.999 8065	2844	5 35	18 34
4	279.5	12 45 52.127	−975	+9	13 23 34.1	59 4.5	+61	1.000 0909	2857	5 32	18 35
5	280.5	12 49 48.680	977	+3	14 22 38.6	59 2.5	+55	1.000 3766	2868	5 30	18 37
6	281.5	12 53 45.233	979	−3	15 21 41.1	59 0.4	+46	1.000 6634	2880	5 28	18 38
7	282.5	12 57 41.787	980	−8	16 20 41.5	58 58.5	+35	1.000 9514	2889	5 26	18 40
8	283.5	13 1 38.341	982	−10	17 19 40.0	58 56.6	+23	1.001 2403	2896	5 24	18 41
9	284.5	13 5 34.894	984	−10	18 18 36.6	58 54.7	+10	1.001 5299	2901	5 22	18 43
10	285.5	13 9 31.448	−986	−8	19 17 31.3	58 53.0	−4	1.001 8200	2903	5 20	18 44
11	286.5	13 13 28.001	987	−4	20 16 24.3	58 51.1	−17	1.002 1103	2901	5 18	18 46
12	287.5	13 17 24.555	989	0	21 15 15.4	58 49.4	−29	1.002 4004	2896	5 15	18 48
13	288.5	13 21 21.109	990	+4	22 14 4.8	58 47.7	−40	1.002 6900	2890	5 13	18 49
14	289.5	13 25 17.663	992	+8	23 12 52.5	58 46.0	−49	1.002 9790	2880	5 11	18 51
15	290.5	13 29 14.217	993	+10	24 11 38.5	58 44.2	−55	1.003 2670	2866	5 9	18 52
16	291.5	13 33 10.771	−994	+10	25 10 22.7	58 42.5	−58	1.003 5536	2849	5 7	18 54
17	292.5	13 37 7.325	996	+7	26 9 5.2	58 40.8	−59	1.003 8385	2829	5 5	18 55
18	293.5	13 41 3.880	997	+3	27 7 46.0	58 39.0	−58	1.004 1214	2807	5 3	18 57
19	294.5	13 45 0.434	998	−3	28 6 25.0	58 37.3	−54	1.004 4021	2780	5 1	18 59
20	295.5	13 48 56.988	999	−9	29 5 2.3	58 35.4	−46	1.004 6801	2752	4 59	19 0
21	296.5	13 52 53.542	1000	−14	30 3 37.7	58 33.5	−36	1.004 9553	2721	4 57	19 2
22	297.5	13 56 50.097	−1001	−16	31 2 11.2	58 31.5	−25	1.005 2274	2691	4 55	19 3
23	298.5	14 0 46.652	1002	−16	32 0 42.7	58 29.5	−12	1.005 4965	2660	4 53	19 5
24	299.5	14 4 43.206	1002	−11	32 59 12.2	58 27.4	+2	1.005 7625	2631	4 51	19 6
25	300.5	14 8 39.761	1003	−5	33 57 39.6	58 25.3	+15	1.006 0256	2603	4 49	19 8
26	301.5	14 12 36.316	1003	+3	34 56 4.9	58 23.2	+27	1.006 2859	2578	4 47	19 10
27	302.5	14 16 32.871	1004	+10	35 54 28.1	58 21.0	+37	1.006 5437	2555	4 45	19 11
28	303.5	14 20 29.426	−1004	+15	36 52 49.1	58 19.0	+44	1.006 7992	2535	4 44	19 13
29	304.5	14 24 25.981	1005	+17	37 51 8.1	58 16.8	+47	1.007 0527	2517	4 42	19 14
30	305.5	14 28 22.536	1005	+15	38 49 24.9	58 14.8	+48	1.007 3044	2501	4 40	19 16
Mai 1	306.5	14 32 19.091	1005	+11	39 47 39.7	58 12.7	+46	1.007 5545	2488	4 38	19 17
2	307.5	14 36 15.647	1005	+5	40 45 52.4	58 10.9	+40	1.007 8033	2475	4 36	19 19
3	308.5	14 40 12.202	−1005	−1	41 44 3.3		+32	1.008 0508		4 35	19 20

Sonne 1947

Tag		Wochentag	0ʰ Weltzeit: Zeitgleichung (Wahre Zeit *minus* Mittlere Zeit)		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1947			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Mai	3	Sa	+ 3 2.43	6.72	2 37 9.78	3 49.83	+15 21 28.8	17 47.0	66.10	15 53.82
	4	So	3 9.15	6.18	2 40 59.61	3 50.37	15 39 15.8	17 31.4	66.18	15 53.59
	5	Mo	3 15.33	5.62	2 44 49.98	3 50.94	15 56 47.2	17 15.6	66.26	15 53.36
	6	Di	3 20.95	5.06	2 48 40.92	3 51.49	16 14 2.8	16 59.5	66.34	15 53.12
	7	Mi	3 26.01	4.50	2 52 32.41	3 52.06	16 31 2.3	16 43.0	66.43	15 52.89
	8	Do	3 30.51	3.92	2 56 24.47	3 52.64	16 47 45.3	16 26.3	66.51	15 52.67
	9	Fr	+ 3 34.43	3.33	3 0 17.11	3 53.22	+17 4 11.6	16 9.4	66.59	15 52.44
	10	Sa	3 37.76	2.75	3 4 10.33	3 53.81	17 20 21.0	15 52.0	66.67	15 52.22
	11	So	3 40.51	2.16	3 8 4.14	3 54.40	17 36 13.0	15 34.4	66.75	15 52.00
	12	Mo	3 42.67	1.57	3 11 58.54	3 54.98	17 51 47.4	15 16.6	66.83	15 51.78
	13	Di	3 44.24	0.98	3 15 53.52	3 55.58	18 7 4.0	14 58.4	66.92	15 51.56
	14	Mi	3 45.22	0.39	3 19 49.10	3 56.17	18 22 2.4	14 40.0	67.00	15 51.35
	15	Do	+ 3 45.61	0.20	3 23 45.27	3 56.75	+18 36 42.4	14 21.3	67.08	15 51.13
	16	Fr	3 45.41	0.79	3 27 42.02	3 57.35	18 51 3.7	14 2.3	67.16	15 50.92
	17	Sa	3 44.62	1.36	3 31 39.37	3 57.92	19 5 6.0	13 42.9	67.24	15 50.73
	18	So	3 43.26	1.94	3 35 37.29	3 58.49	19 18 48.9	13 23.4	67.32	15 50.52
	19	Mo	3 41.32	2.50	3 39 35.78	3 59.06	19 32 12.3	13 3.5	67.40	15 50.33
	20	Di	3 38.82	3.06	3 43 34.84	3 59.61	19 45 15.8	12 43.3	67.48	15 50.14
	21	Mi	+ 3 35.76	3.59	3 47 34.45	4 0.15	+19 57 59.1	12 22.9	67.56	15 49.95
	22	Do	3 32.17	4.12	3 51 34.60	4 0.68	20 10 22.0	12 2.1	67.64	15 49.77
	23	Fr	3 28.05	4.64	3 55 35.28	4 1.20	20 22 24.1	11 41.2	67.71	15 49.60
	24	Sa	3 23.41	5.14	3 59 36.48	4 1.69	20 34 5.3	11 19.9	67.79	15 49.42
	25	So	3 18.27	5.63	4 3 38.17	4 2.19	20 45 25.2	10 58.5	67.86	15 49.25
	26	Mo	3 12.64	6.10	4 7 40.36	4 2.66	20 56 23.7	10 36.7	67.93	15 49.10
	27	Di	+ 3 6.54	6.57	4 11 43.02	4 3.13	+21 7 0.4	10 14.8	68.00	15 48.93
	28	Mi	2 59.97	7.03	4 15 46.15	4 3.58	21 17 15.2	9 52.7	68.07	15 48.78
	29	Do	2 52.94	7.47	4 19 49.73	4 4.02	21 27 7.9	9 30.3	68.14	15 48.63
	30	Fr	2 45.47	7.89	4 23 53.75	4 4.45	21 36 38.2	9 7.8	68.20	15 48.48
	31	Sa	2 37.58	8.31	4 27 58.20	4 4.87	21 45 46.0	8 45.2	68.26	15 48.34
Juni	1	So	2 29.27	8.72	4 32 3.07	4 5.28	21 54 31.2	8 22.2	68.32	15 48.19
	2	Mo	+ 2 20.55	9.11	4 36 8.35	4 5.67	+22 2 53.4	7 59.2	68.38	15 48.05
	3	Di	2 11.44	9.49	4 40 14.02	4 6.05	22 10 52.6	7 36.0	68.43	15 47.91
	4	Mi	2 1.95	9.87	4 44 20.07	4 6.42	22 18 28.6	7 12.7	68.48	15 47.78
	5	Do	1 52.08	10.21	4 48 26.49	4 6.77	22 25 41.3	6 49.2	68.53	15 47.65
	6	Fr	1 41.87	10.55	4 52 33.26	4 7.11	22 32 30.5	6 25.5	68.58	15 47.52
	7	Sa	1 31.32	10.87	4 56 40.37	4 7.43	22 38 56.0	6 1.8	68.63	15 47.40
	8	So	+ 1 20.45	11.17	5 0 47.80	4 7.73	+22 44 57.8	5 37.9	68.67	15 47.28
	9	Mo	1 9.28	11.46	5 4 55.53	4 8.02	22 50 35.7	5 13.9	68.71	15 47.16
	10	Di	0 57.82	11.73	5 9 3.55	4 8.29	22 55 49.6	4 49.8	68.74	15 47.04
	11	Mi	0 46.09	11.98	5 13 11.84	4 8.53	23 0 39.4	4 25.5	68.77	15 46.93
	12	Do	0 34.11	12.21	5 17 20.37	4 8.77	23 5 4.9	4 1.3	68.80	15 46.82
	13	Fr	+ 0 21.90		5 21 29.14		+23 9 6.2		68.83	15 46.72

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1947.0 Länge		Breite	R		Aufgang (in +50° Breite, 0h Länge)	Untergang (in +50° Breite, 0h Länge)
1947	2432	h m s	s in 0.001		° ′ ″	′ ″	″ in 0.01			h m	h m
Mai 3	308.5	14 40 12.202	−1005	− 1	41 44 3.3	58 9.0	+32	1.008 0508	2463	4 35	19 20
4	309.5	14 44 8.758	1005	− 6	42 42 12.3	58 7.2	+21	1.008 2971	2453	4 33	19 22
5	310.5	14 48 5.313	1004	− 9	43 40 19.5	58 5.5	+ 8	1.008 5424	2440	4 31	19 23
6	311.5	14 52 1.869	1004	−10	44 38 25.0	58 3.8	− 6	1.008 7864	2427	4 29	19 25
7	312.5	14 55 58.425	1004	− 9	45 36 28.8	58 2.3	−19	1.009 0291	2412	4 28	19 26
8	313.5	14 59 54.980	1003	− 5	46 34 31.1	58 0.8	−32	1.009 2703	2395	4 26	19 28
9	314.5	15 3 51.536	−1002	− 1	47 32 31.9	57 59.4	−45	1.009 5098	2375	4 25	19 29
10	315.5	15 7 48.092	1002	+ 3	48 30 31.3	57 58.0	−57	1.009 7473	2355	4 23	19 31
11	316.5	15 11 44.649	1001	+ 6	49 28 29.3	57 56.6	−66	1.009 9828	2330	4 21	19 32
12	317.5	15 15 41.205	1000	+ 9	50 26 25.9	57 55.3	−74	1.010 2158	2304	4 20	19 34
13	318.5	15 19 37.761	999	+10	51 24 21.2	57 54.1	−79	1.010 4462	2275	4 18	19 35
14	319.5	15 23 34.318	998	+ 8	52 22 15.3	57 52.8	−81	1.010 6737	2241	4 17	19 37
15	320.5	15 27 30.874	− 997	+ 4	53 20 8.1	57 51.6	−80	1.010 8978	2206	4 15	19 38
16	321.5	15 31 27.430	996	− 2	54 17 59.7	57 50.4	−76	1.011 1184	2166	4 14	19 39
17	322.5	15 35 23.987	995	− 8	55 15 50.1	57 49.2	−69	1.011 3350	2123	4 13	19 41
18	323.5	15 39 20.544	993	−13	56 13 39.3	57 48.0	−60	1.011 5473	2077	4 11	19 42
19	324.5	15 43 17.101	992	−17	57 11 27.3	57 46.6	−49	1.011 7550	2029	4 10	19 44
20	325.5	15 47 13.657	991	−17	58 9 13.9	57 45.4	−36	1.011 9579	1979	4 9	19 45
21	326.5	15 51 10.214	− 989	−14	59 6 59.3	57 43.9	−23	1.012 1558	1927	4 8	19 46
22	327.5	15 55 6.771	987	− 7	60 4 43.2	57 42.5	−10	1.012 3485	1877	4 6	19 48
23	328.5	15 59 3.329	985	+ 1	61 2 25.7	57 41.1	+ 3	1.012 5362	1828	4 5	19 49
24	329.5	16 2 59.886	984	+ 9	62 0 6.8	57 39.5	+14	1.012 7190	1780	4 4	19 50
25	330.5	16 6 56.443	982	+15	62 57 46.3	57 38.0	+22	1.012 8970	1735	4 3	19 51
26	331.5	16 10 53.000	980	+18	63 55 24.3	57 36.5	+26	1.013 0705	1694	4 2	19 53
27	332.5	16 14 49.558	− 978	+17	64 53 0.8	57 35.0	+28	1.013 2399	1654	4 1	19 54
28	333.5	16 18 46.115	976	+13	65 50 35.8	57 33.6	+27	1.013 4053	1618	4 0	19 55
29	334.5	16 22 42.672	974	+ 7	66 48 9.4	57 32.1	+23	1.013 5671	1584	3 59	19 56
30	335.5	16 26 39.230	972	+ 1	67 45 41.5	57 30.8	+15	1.013 7255	1552	3 58	19 57
31	336.5	16 30 35.788	969	− 5	68 43 12.3	57 29.6	+ 5	1.013 8807	1522	3 57	19 58
Juni 1	337.5	16 34 32.345	967	− 8	69 40 41.9	57 28.3	− 7	1.014 0329	1493	3 57	19 59
2	338.5	16 38 28.903	− 965	−10	70 38 10.2	57 27.3	−20	1.014 1822	1464	3 56	20 0
3	339.5	16 42 25.461	962	− 9	71 35 37.5	57 26.2	−34	1.014 3286	1435	3 55	20 1
4	340.5	16 46 22.019	960	− 6	72 33 3.7	57 25.2	−48	1.014 4721	1406	3 54	20 2
5	341.5	16 50 18.576	957	− 2	73 30 28.9	57 24.4	−61	1.014 6127	1375	3 54	20 3
6	342.5	16 54 15.134	955	+ 2	74 27 53.3	57 23.5	−73	1.014 7502	1345	3 53	20 4
7	343.5	16 58 11.692	952	+ 6	75 25 16.8	57 22.9	−83	1.014 8847	1311	3 53	20 5
8	344.5	17 2 8.250	− 950	+ 8	76 22 39.7	57 22.1	− 91	1.015 0158	1277	3 52	20 6
9	345.5	17 6 4.808	947	+10	77 20 1.8	57 21.6	− 97	1.015 1435	1240	3 52	20 7
10	346.5	17 10 1.366	944	+ 9	78 17 23.4	57 21.0	−101	1.015 2675	1201	3 51	20 7
11	347.5	17 13 57.924	942	+ 5	79 14 44.4	57 20.5	−101	1.015 3876	1160	3 51	20 8
12	348.5	17 17 54.482	939	0	80 12 4.9	57 20.1	− 98	1.015 5036	1115	3 51	20 9
13	349.5	17 21 51.041	− 936	− 6	81 9 25.0		− 92	1.015 6151		3 51	20 9

Sonne 1947

Tag		Wochentag	0h Weltzeit: Zeitgleichung (Wahre Zeit *minus* Mittlere Zeit)	Diff.	Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1947			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Juni	13	Fr	+ 0 21.90	12.41	5 21 29.14	4 8.97	+23 9 6.2	3 36.8	68.83	15 46.72
	14	Sa	+ 0 9.49	12.59	5 25 38.11	4 9.15	23 12 43.0	3 12.2	68.86	15 46.62
	15	So	— 0 3.10	12.75	5 29 47.26	4 9.31	23 15 55.2	2 47.7	68.88	15 46.52
	16	Mo	0 15.85	12.89	5 33 56.57	4 9.44	23 18 42.9	2 23.1	68.90	15 46.43
	17	Di	0 28.74	12.99	5 38 6.01	4 9.55	23 21 6.0	1 58.3	68.92	15 46.35
	18	Mi	0 41.73	13.07	5 42 15.56	4 9.63	23 23 4.3	1 33.5	68.93	15 46.27
	19	Do	— 0 54.80	13.12	5 46 25.19	4 9.67	+23 24 37.8	1 8.7	68.94	15 46.20
	20	Fr	1 7.92	13.13	5 50 34.86	4 9.69	23 25 46.5	0 43.9	68.94	15 46.13
	21	Sa	1 21.05	13.12	5 54 44.55	4 9.68	23 26 30.4	0 19.0	68.94	15 46.07
	22	So	1 34.17	13.08	5 58 54.23	4 9.64	23 26 49.4	0 5.8	68.94	15 46.02
	23	Mo	1 47.25	13.02	6 3 3.87	4 9.58	23 26 43.6	0 30.7	68.93	15 45.96
	24	Di	2 0.27	12.92	6 7 13.45	4 9.48	23 26 12.9	0 55.5	68.92	15 45.92
	25	Mi	— 2 13.19	12.80	6 11 22.93	4 9.36	+23 25 17.4	1 20.2	68.91	15 45.87
	26	Do	2 25.99	12.67	6 15 32.29	4 9.23	23 23 57.2	1 45.0	68.90	15 45.84
	27	Fr	2 38.66	12.50	6 19 41.52	4 9.06	23 22 12.2	2 9.6	68.88	15 45.81
	28	Sa	2 51.16	12.33	6 23 50.58	4 8.88	23 20 2.6	2 34.2	68.86	15 45.78
	29	So	3 3.49	12.13	6 27 59.46	4 8.69	23 17 28.4	2 58.7	68.84	15 45.76
	30	Mo	3 15.62	11.90	6 32 8.15	4 8.46	23 14 29.7	3 23.2	68.81	15 45.74
Juli	1	Di	— 3 27.52	11.66	6 36 16.61	4 8.22	+23 11 6.5	3 47.5	68.79	15 45.72
	2	Mi	3 39.18	11.40	6 40 24.83	4 7.96	23 7 19.0	4 11.6	68.75	15 45.71
	3	Do	3 50.58	11.13	6 44 32.79	4 7.69	23 3 7.4	4 35.8	68.71	15 45.71
	4	Fr	4 1.71	10.84	6 48 40.48	4 7.40	22 58 31.6	4 59.9	68.67	15 45.69
	5	Sa	4 12.55	10.53	6 52 47.88	4 7.08	22 53 31.7	5 23.7	68.63	15 45.69
	6	So	4 23.08	10.20	6 56 54.96	4 6.76	22 48 8.0	5 47.4	68.59	15 45.69
	7	Mo	— 4 33.28	9.85	7 1 1.72	4 6.41	+22 42 20.6	6 11.0	68.54	15 45.70
	8	Di	4 43.13	9.50	7 5 8.13	4 6.06	22 36 9.6	6 34.5	68.48	15 45.70
	9	Mi	4 52.63	9.13	7 9 14.19	4 5.68	22 29 35.1	6 57.9	68.43	15 45.71
	10	Do	5 1.76	8.73	7 13 19.87	4 5.29	22 22 37.2	7 21.0	68.37	15 45.73
	11	Fr	5 10.49	8.33	7 17 25.16	4 4.88	22 15 16.2	7 44.0	68.31	15 45.75
	12	Sa	5 18.82	7.91	7 21 30.04	4 4.47	22 7 32.2	8 6.9	68.25	15 45.77
	13	So	— 5 26.73	7.47	7 25 34.51	4 4.03	+21 59 25.3	8 29.5	68.19	15 45.80
	14	Mo	5 34.20	7.01	7 29 38.54	4 3.57	21 50 55.8	8 52.0	68.13	15 45.83
	15	Di	5 41.21	6.54	7 33 42.11	4 3.10	21 42 3.8	9 14.2	68.06	15 45.86
	16	Mi	5 47.75	6.06	7 37 45.21	4 2.61	21 32 49.6	9 36.4	67.99	15 45.91
	17	Do	5 53.81	5.55	7 41 47.82	4 2.11	21 23 13.2	9 58.2	67.92	15 45.96
	18	Fr	5 59.36	5.02	7 45 49.93	4 1.58	21 13 15.0	10 19.9	67.84	15 46.02
	19	Sa	— 6 4.38	4.49	7 49 51.51	4 1.04	+21 2 55.1	10 41.2	67.77	15 46.07
	20	So	6 8.87	3.92	7 53 52.55	4 0.49	20 52 13.9	11 2.4	67.70	15 46.14
	21	Mo	6 12.79	3.36	7 57 53.04	3 59.91	20 41 11.5	11 23.3	67.62	15 46.21
	22	Di	6 16.15	2.78	8 1 52.95	3 59.33	20 29 48.2	12 43.9	67.54	15 46.29
	23	Mi	6 18.93	2.18	8 5 52.28	3 58.74	20 18 4.3	12 4.2	67.46	15 46.37
	24	Do	— 6 21.11		8 9 51.02		+20 6 0.1		67.38	15 46.46

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1947.0 Länge		Breite	R		Aufgang in {+50° Breite, 0h Länge}	Untergang in {+50° Breite, 0h Länge}
	0h Weltzeit										
1947	2432	h m s	s in 0.001		° ′ ″	′ ″	″ in 0.01			h m	h m
Juni 13	349.5	17 21 51.041	−936	− 6	81 9 25.0	57 19.7	− 92	1.015 6151	1068	3 51	20 9
14	350.5	17 25 47.599	933	−12	82 6 44.7	57 19.2	− 83	1.015 7219	1017	3 50	20 10
15	351.5	17 29 44.157	930	−17	83 4 3.9	57 18.9	− 72	1.015 8236	963	3 50	20 10
16	352.5	17 33 40.715	928	−19	84 1 22.8	57 18.5	− 60	1.015 9199	905	3 50	20 11
17	353.5	17 37 37.273	925	−17	84 58 41.3	57 18.1	− 47	1.016 0104	845	3 50	20 11
18	354.5	17 41 33.832	922	−11	85 55 59.4	57 17.5	− 34	1.016 0949	784	3 50	20 12
19	355.5	17 45 30.390	−919	− 3	86 53 16.9	57 17.1	− 21	1.016 1733	721	3 50	20 12
20	356.5	17 49 26.948	916	+ 5	87 50 34.0	57 16.5	− 9	1.016 2454	659	3 50	20 12
21	357.5	17 53 23.506	913	+13	88 47 50.5	57 15.8	0	1.016 3113	599	3 50	20 13
22	358.5	17 57 20.065	910	+17	89 45 6.3	57 15.2	+ 6	1.016 3712	540	3 51	20 13
23	359.5	18 1 16.623	908	+18	90 42 21.5	57 14.6	+ 9	1.016 4252	485	3 51	20 13
24	360.5	18 5 13.181	905	+15	91 39 36.1	57 14.0	+ 9	1.016 4737	433	3 51	20 13
25	361.5	18 9 9.739	−902	+10	92 36 50.1	57 13.3	+ 6	1.016 5170	384	3 51	20 13
26	362.5	18 13 6.298	899	+ 4	93 34 3.4	57 12.7	− 1	1.016 5554	339	3 52	20 13
27	363.5	18 17 2.856	896	− 2	94 31 16.1	57 12.2	− 10	1.016 5893	296	3 52	20 13
28	364.5	18 20 59.414	893	− 7	95 28 28.3	57 11.7	− 22	1.016 6189	254	3 53	20 13
29	365.5	18 24 55.972	890	− 9	96 25 40.0	57 11.4	− 34	1.016 6443	215	3 53	20 13
30	366.5	18 28 52.530	887	− 8	97 22 51.4	57 11.0	− 47	1.016 6658	178	3 54	20 13
Juli 1	367.5	18 32 49.089	−885	− 5	98 20 2.4	57 10.8	− 60	1.016 6836	141	3 54	20 13
2	368.5	18 36 45.647	882	− 2	99 17 13.2	57 10.6	− 73	1.016 6977	105	3 55	20 12
3	369.5	18 40 42.205	879	+ 2	100 14 23.8	57 10.5	− 84	1.016 7082	70	3 56	20 12
4	370.5	18 44 38.763	877	+ 5	101 11 34.3	57 10.5	− 94	1.016 7152	34	3 56	20 12
5	371.5	18 48 35.321	874	+ 8	102 8 44.8	57 10.7	−103	1.016 7186	3	3 57	20 11
6	372.5	18 52 31.879	871	+10	103 5 55.5	57 10.7	−109	1.016 7183	39	3 58	20 11
7	373.5	18 56 28.437	−869	+ 9	104 3 6.2	57 11.0	−112	1.016 7144	78	3 59	20 10
8	374.5	19 0 24.995	866	+ 7	105 0 17.2	57 11.3	−113	1.016 7066	117	3 59	20 10
9	375.5	19 4 21.553	863	+ 2	105 57 28.5	57 11.6	−110	1.016 6949	158	4 0	20 9
10	376.5	19 8 18.111	861	− 4	106 54 40.1	57 12.1	−105	1.016 6791	202	4 1	20 9
11	377.5	19 12 14.668	859	−10	107 51 52.2	57 12.5	− 97	1.016 6589	248	4 2	20 8
12	378.5	19 16 11.226	856	−16	108 49 4.7	57 13.1	− 86	1.016 6341	298	4 3	20 7
13	379.5	19 20 7.784	−854	−19	109 46 17.8	57 13.6	− 74	1.016 6043	350	4 4	20 6
14	380.5	19 24 4.341	851	−19	110 43 31.4	57 14.2	− 61	1.016 5693	405	4 5	20 6
15	381.5	19 28 0.899	849	−15	111 40 45.6	57 14.7	− 47	1.016 5288	464	4 6	20 5
16	382.5	19 31 57.457	847	− 8	112 38 0.3	57 15.3	− 34	1.016 4824	524	4 7	20 4
17	383.5	19 35 54.014	845	+ 1	113 35 15.6	57 15.7	− 23	1.016 4300	586	4 8	20 3
18	384.5	19 39 50.572	843	+ 9	114 32 31.3	57 16.2	− 13	1.016 3714	650	4 10	20 2
19	385.5	19 43 47.129	−841	+15	115 29 47.5	57 16.5	− 5	1.016 3064	713	4 11	20 1
20	386.5	19 47 43.686	839	+17	116 27 4.0	57 16.9	− 1	1.016 2351	773	4 12	20 0
21	387.5	19 51 40.243	837	+16	117 24 20.9	57 17.2	0	1.016 1578	832	4 13	19 59
22	388.5	19 55 36.800	835	+12	118 21 38.1	57 17.5	− 2	1.016 0746	888	4 14	19 57
23	389.5	19 59 33.358	834	+ 6	119 18 55.6	57 17.8	− 7	1.015 9858	939	4 16	19 56
24	390.5	20 3 29.915	−832	0	120 16 13.4		− 15	1.015 8919		4 17	19 55

Tag		Wochentag	0h Weltzeit						Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
			Zeitgleichung Wahre Zeit *minus* Mittlere Zeit		Scheinbare Rektaszension		Scheinbare Deklination			
1947			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Juli	24	Do	— 6 21.11	1.58	8 9 51.02	3 58.14	+20 6 0.1	12 24.4	67.38	15 46.46
	25	Fr	6 22.69	0.97	8 13 49.16	3 57.53	19 53 35.7	12 44.2	67.30	15 46.55
	26	Sa	6 23.66	0.37	8 17 46.69	3 56.93	19 40 51.5	13 3.8	67.22	15 46.65
	27	So	6 24.03	0.24	8 21 43.62	3 56.31	19 27 47.7	13 23.1	67.13	15 46.75
	28	Mo	6 23.79	0.86	8 25 39.93	3 55.70	19 14 24.6	13 42.1	67.05	15 46.85
	29	Di	6 22.93	1.47	8 29 35.63	3 55.09	19 0 42.5	14 0.8	66.96	15 46.96
	30	Mi	— 6 21.46	2.08	8 33 30.72	3 54.47	+18 46 41.7	14 19.3	66.87	15 47.07
	31	Do	6 19.38	2.70	8 37 25.19	3 53.86	18 32 22.4	14 37.5	66.79	15 47.18
Aug.	1	Fr	6 16.68	3.30	8 41 19.05	3 53.25	18 17 44.9	14 55.5	66.70	15 47.30
	2	Sa	6 13.38	3.91	8 45 12.30	3 52.64	18 2 49.4	15 13.1	66.61	15 47.42
	3	So	6 9.47	4.52	8 49 4.94	3 52.05	17 47 36.3	15 30.4	66.53	15 47.54
	4	Mo	6 4.95	5.11	8 52 56.99	3 51.45	17 32 5.9	15 47.5	66.44	15 47.66
	5	Di	— 5 59.84	5.69	8 56 48.44	3 50.85	+17 16 18.4	16 4.3	66.35	15 47.80
	6	Mi	5 54.15	6.29	9 0 39.29	3 50.27	17 0 14.1	16 20.9	66.27	15 47.93
	7	Do	5 47.86	6.87	9 4 29.56	3 49.70	16 43 53.2	16 37.1	66.18	15 48.06
	8	Fr	5 40.99	7.43	9 8 19.26	3 49.12	16 27 16.1	16 53.0	66.09	15 48.20
	9	Sa	5 33.56	8.00	9 12 8.38	3 48.55	16 10 23.1	17 8.8	66.01	15 48.34
	10	So	5 25.56	8.56	9 15 56.93	3 47.99	15 53 14.3	17 24.1	65.92	15 48.49
	11	Mo	— 5 17.00	9.12	9 19 44.92	3 47.44	+15 35 50.2	17 39.2	65.84	15 48.63
	12	Di	5 7.88	9.66	9 23 32.36	3 46.90	15 18 11.0	17 54.0	65.76	15 48.79
	13	Mi	4 58.22	10.21	9 27 19.26	3 46.34	15 0 17.0	18 8.5	65.68	15 48.94
	14	Do	4 48.01	10.75	9 31 5.60	3 45.81	14 42 8.5	18 22.6	65.60	15 49.11
	15	Fr	4 37.26	11.27	9 34 51.41	3 45.28	14 23 45.9	18 36.4	65.52	15 49.27
	16	Sa	4 25.99	11.81	9 38 36.69	3 44.74	14 5 9.5	18 50.0	65.44	15 49.44
	17	So	— 4 14.18	12.34	9 42 21.43	3 44.22	+13 46 19.5	19 3.1	65.36	15 49.62
	18	Mo	4 1.84	12.85	9 46 5.65	3 43.70	13 27 16.4	19 15.9	65.28	15 49.80
	19	Di	3 48.99	13.37	9 49 49.35	3 43.19	13 8 0.5	19 28.4	65.21	15 49.98
	20	Mi	3 35.62	13.87	9 53 32.54	3 42.69	12 48 32.1	19 40.5	65.13	15 50.17
	21	Do	3 21.75	14.37	9 57 15.23	3 42.18	12 28 51.6	19 52.3	65.06	15 50.37
	22	Fr	3 7.38	14.85	10 0 57.41	3 41.71	12 8 59.3	20 3.8	64.99	15 50.57
	23	Sa	— 2 52.53	15.31	10 4 39.12	3 41.24	+11 48 55.5	20 14.9	64.93	15 50.77
	24	So	2 37.22	15.77	10 8 20.36	3 40.78	11 28 40.6	20 25.7	64.86	15 50.97
	25	Mo	2 21.45	16.22	10 12 1.14	3 40.34	11 8 14.9	20 36.2	64.80	15 51.19
	26	Di	2 5.23	16.63	10 15 41.48	3 39.93	10 47 38.7	20 46.3	64.74	15 51.40
	27	Mi	1 48.60	17.04	10 19 21.41	3 39.51	10 26 52.4	20 56.3	64.68	15 51.61
	28	Do	1 31.56	17.43	10 23 0.92	3 39.13	10 5 56.1	21 5.7	64.62	15 51.83
	29	Fr	— 1 14.13	17.80	10 26 40.05	3 38.75	+ 9 44 50.4	21 15.0	64.57	15 52.04
	30	Sa	0 56.33	18.15	10 30 18.80	3 38.40	9 23 35.4	21 24.0	64.51	15 52.26
	31	So	0 38.18	18.49	10 33 57.20	3 38.07	9 2 11.4	21 32.5	64.46	15 52.49
Sept.	1	Mo	0 19.69	18.80	10 37 35.27	3 37.75	8 40 38.9	21 40.9	64.41	15 52.71
	2	Di	— 0 0.89	19.09	10 41 13.02	3 37.46	8 18 58.0	21 48.9	64.37	15 52.93
	3	Mi	+ 0 18.20		10 44 50.48		+ 7 57 9.1		64.33	15 53.16

Sonne 1947

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1947.0 Länge		Breite	R		Aufgang (in +50° Breite, 0h Länge)	Untergang (in +50° Breite, 0h Länge)
0h Weltzeit											
1947	2432	h m s	s in 0.001		° ' "	' "	" in 0.01			h m	h m
Juli 24	390.5	20 3 29.915	−832	0	120 16 13.4	57 18.2	−15	1.015 8919	986	4 17	19 55
25	391.5	20 7 26.472	830	−5	121 13 31.6	57 18.4	−25	1.015 7933	1032	4 18	19 54
26	392.5	20 11 23.028	829	−8	122 10 50.0	57 18.9	−37	1.015 6901	1075	4 20	19 52
27	393.5	20 15 19.585	827	−8	123 8 8.9	57 19.3	−49	1.015 5826	1114	4 21	19 51
28	394.5	20 19 16.142	826	−6	124 5 28.2	57 19.9	−61	1.015 4712	1151	4 22	19 50
29	395.5	20 23 12.699	825	−3	125 2 48.1	57 20.4	−74	1.015 3561	1186	4 24	19 48
30	396.5	20 27 9.255	−824	+1	126 0 8.5	57 21.1	−85	1.015 2375	1220	4 25	19 47
31	397.5	20 31 5.812	822	+5	126 57 29.6	57 21.8	−95	1.015 1155	1252	4 26	19 45
Aug. 1	398.5	20 35 2.368	821	+9	127 54 51.4	57 22.6	−103	1.014 9903	1284	4 28	19 44
2	399.5	20 38 58.924	820	+11	128 52 14.0	57 23.5	−108	1.014 8619	1314	4 29	19 42
3	400.5	20 42 55.481	820	+11	129 49 37.5	57 24.4	−112	1.014 7305	1345	4 31	19 41
4	401.5	20 46 52.037	819	+8	130 47 1.9	57 25.5	−113	1.014 5960	1375	4 32	19 39
5	402.5	20 50 48.593	−818	+4	131 44 27.4	57 26.6	−111	1.014 4585	1406	4 33	19 38
6	403.5	20 54 45.149	817	−1	132 41 54.0	57 27.7	−105	1.014 3179	1438	4 35	19 36
7	404.5	20 58 41.705	817	−8	133 39 21.7	57 29.0	−98	1.014 1741	1472	4 36	19 34
8	405.5	21 2 38.261	816	−14	134 36 50.7	57 30.4	−88	1.014 0269	1507	4 38	19 33
9	406.5	21 6 34.816	816	−18	135 34 21.1	57 31.7	−76	1.013 8762	1544	4 39	19 31
10	407.5	21 10 31.372	816	−19	136 31 52.8	57 33.1	−63	1.013 7218	1584	4 41	19 29
11	408.5	21 14 27.928	−816	−17	137 29 25.9	57 34.6	−50	1.013 5634	1628	4 42	19 27
12	409.5	21 18 24.483	815	−11	138 27 0.5	57 36.0	−37	1.013 4006	1674	4 44	19 26
13	410.5	21 22 21.039	815	−3	139 24 36.5	57 37.4	−24	1.013 2332	1723	4 45	19 24
14	411.5	21 26 17.594	815	+5	140 22 13.9	57 38.9	−14	1.013 0609	1773	4 47	19 22
15	412.5	21 30 14.149	815	+12	141 19 52.8	57 40.2	−6	1.012 8836	1826	4 48	19 20
16	413.5	21 34 10.704	816	+16	142 17 33.0	57 41.5	0	1.012 7010	1879	4 50	19 18
17	414.5	21 38 7.259	−816	+16	143 15 14.5	57 42.8	+1	1.012 5131	1931	4 51	19 16
18	415.5	21 42 3.814	816	+13	144 12 57.3	57 44.0	−1	1.012 3200	1982	4 53	19 14
19	416.5	21 46 0.369	817	+7	145 10 41.3	57 45.1	−5	1.012 1218	2029	4 54	19 12
20	417.5	21 49 56.924	817	+1	146 8 26.4	57 46.3	−12	1.011 9189	2074	4 55	19 10
21	418.5	21 53 53.479	818	−4	147 6 12.7	57 47.5	−21	1.011 7115	2116	4 57	19 8
22	419.5	21 57 50.034	819	−8	148 4 0.2	57 48.6	−32	1.011 4999	2153	4 58	19 7
23	420.5	22 1 46.588	−819	−9	149 1 48.8	57 49.7	−44	1.011 2846	2187	5 0	19 5
24	421.5	22 5 43.143	820	−7	149 59 38.5	57 51.0	−56	1.011 0659	2218	5 1	19 3
25	422.5	22 9 39.697	821	−4	150 57 29.5	57 52.2	−68	1.010 8441	2247	5 3	19 1
26	423.5	22 13 36.252	822	+1	151 55 21.7	57 53.5	−79	1.010 6194	2272	5 4	18 58
27	424.5	22 17 32.806	823	+5	152 53 15.2	57 54.8	−89	1.010 3922	2295	5 6	18 56
28	425.5	22 21 29.360	824	+9	153 51 10.0	57 56.2	−96	1.010 1627	2316	5 7	18 54
29	426.5	22 25 25.914	−825	+11	154 49 6.2	57 57.6	−102	1.009 9311	2335	5 9	18 52
30	427.5	22 29 22.468	826	+11	155 47 3.8	57 59.2	−105	1.009 6976	2351	5 10	18 50
31	428.5	22 33 19.023	828	+10	156 45 3.0	58 0.8	−105	1.009 4625	2367	5 12	18 48
Sept. 1	429.5	22 37 15.577	829	+6	157 43 3.8	58 2.4	−103	1.009 2258	2382	5 13	18 46
2	430.5	22 41 12.131	831	+1	158 41 6.2	58 4.2	−97	1.008 9876	2396	5 15	18 44
3	431.5	22 45 8.685	−832	−5	159 39 10.4		−89	1.008 7480		5 16	18 42

Tag	Wochentag	0h Weltzeit							
		Zeitgleichung Wahre Zeit *minus* Mittlere Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1947		m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Sept. 3	Mi	+ 0 18.20	19.37	10 44 50.48	3 37.19	+ 7 57 9.1	21 56.5	64.33	15 53.16
4	Do	0 37.57	19.62	10 48 27.67	3 36.93	7 35 12.6	22 4.0	64.29	15 53.39
5	Fr	0 57.19	19.85	10 52 4.60	3 36.70	7 13 8.6	22 11.2	64.25	15 53.62
6	Sa	1 17.04	20.07	10 55 41.30	3 36.49	6 50 57.4	22 17.9	64.21	15 53.85
7	So	1 37.11	20.26	10 59 17.79	3 36.30	6 28 39.5	22 24.5	64.18	15 54.08
8	Mo	1 57.37	20.43	11 2 54.09	3 36.12	6 6 15.0	22 30.7	64.15	15 54.32
9	Di	+ 2 17.80	20.59	11 6 30.21	3 35.97	+ 5 43 44.3	22 36.5	64.12	15 54.55
10	Mi	2 38.39	20.72	11 10 6.18	3 35.83	5 21 7.8	22 42.2	64.10	15 54.80
11	Do	2 59.11	20.84	11 13 42.01	3 35.70	4 58 25.6	22 47.3	64.07	15 55.04
12	Fr	3 19.95	20.96	11 17 17.71	3 35.60	4 35 38.3	22 52.2	64.05	15 55.28
13	Sa	3 40.91	21.04	11 20 53.31	3 35.52	4 12 46.1	22 56.8	64.04	15 55.53
14	So	4 1.95	21.12	11 24 28.83	3 35.43	3 49 49.3	23 0.9	64.03	15 55.78
15	Mo	+ 4 23.07	21.17	11 28 4.26	3 35.38	+ 3 26 48.4	23 4.7	64.02	15 56.03
16	Di	4 44.24	21.22	11 31 39.64	3 35.34	3 3 43.7	23 8.1	64.01	15 56.29
17	Mi	5 5.46	21.25	11 35 14.98	3 35.30	2 40 35.6	23 11.2	64.01	15 56.56
18	Do	5 26.71	21.26	11 38 50.28	3 35.29	2 17 24.4	23 13.9	64.01	15 56.82
19	Fr	5 47.97	21.25	11 42 25.57	3 35.30	1 54 10.5	23 16.3	64.01	15 57.09
20	Sa	6 9.22	21.22	11 46 0.87	3 35.33	1 30 54.2	23 18.3	64.01	15 57.35
21	So	+ 6 30.44	21.18	11 49 36.20	3 35.37	+ 1 7 35.9	23 20.0	64.02	15 57.62
22	Mo	6 51.62	21.12	11 53 11.57	3 35.44	0 44 15.9	23 21.2	64.03	15 57.90
23	Di	7 12.74	21.02	11 56 47.01	3 35.53	+ 0 20 54.7	23 22.3	64.05	15 58.17
24	Mi	7 33.76	20.92	12 0 22.54	3 35.64	— 0 2 27.6	23 22.9	64.07	15 58.44
25	Do	7 54.68	20.79	12 3 58.18	3 35.77	0 25 50.5	23 23.1	64.09	15 58.72
26	Fr	8 15.47	20.63	12 7 33.95	3 35.92	0 49 13.6	23 23.1	64.11	15 59.00
27	Sa	+ 8 36.10	20.46	12 11 9.87	3 36.09	— 1 12 36.7	23 22.8	64.13	15 59.27
28	So	8 56.56	20.26	12 14 45.96	3 36.30	1 35 59.5	23 22.1	64.16	15 59.55
29	Mo	9 16.82	20.03	12 18 22.26	3 36.52	1 59 21.6	23 21.0	64.19	15 59.82
30	Di	9 36.85	19.79	12 21 58.78	3 36.76	2 22 42.6	23 19.7	64.22	16 0.10
Okt. 1	Mi	9 56.64	19.53	12 25 35.54	3 37.03	2 46 2.3	23 18.0	64.26	16 0.38
2	Do	10 16.17	19.22	12 29 12.57	3 37.33	3 9 20.3	23 16.0	64.31	16 0.65
3	Fr	+10 35.39	18.91	12 32 49.90	3 37.64	— 3 32 36.3	23 13.7	64.35	16 0.92
4	Sa	10 54.30	18.57	12 36 27.54	3 37.98	3 55 50.0	23 11.1	64.40	16 1.19
5	So	11 12.87	18.21	12 40 5.52	3 38.35	4 19 1.1	23 8.1	64.45	16 1.46
6	Mo	11 31.08	17.82	12 43 43.87	3 38.73	4 42 9.2	23 4.7	64.50	16 1.74
7	Di	11 48.90	17.41	12 47 22.60	3 39.14	5 5 13.9	23 1.0	64.56	16 2.01
8	Mi	12 6.31	16.99	12 51 1.74	3 39.57	5 28 14.9	22 57.1	64.62	16 2.28
9	Do	+12 23.30	16.55	12 54 41.31	3 40.01	— 5 51 12.0	22 52.6	64.68	16 2.55
10	Fr	12 39.85	16.08	12 58 21.32	3 40.47	6 14 4.6	22 47.8	64.74	16 2.82
11	Sa	12 55.93	15.60	13 2 1.79	3 40.95	6 36 52.4	22 42.6	64.81	16 3.10
12	So	13 11.53	15.11	13 5 42.74	3 41.45	6 59 35.0	22 37.1	64.88	16 3.37
13	Mo	13 26.64	14.60	13 9 24.19	3 41.95	7 22 12.1	22 31.1	64.95	16 3.64
14	Di	+13 41.24		13 13 6.14		— 7 44 43.2		65.03	16 3.92

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	kurzp. Gl.	0h Weltzeit – Mittleres Äquinoktium 1947.0 Länge	Diff.	Breite	R	Diff.	Aufgang in +50° Breite, 0h Länge	Untergang in +50° Breite, 0h Länge
1947	2432	h m s	s in 0,001		° ′ ″	′ ″	″ in 0,01			h m	h m
Sept. 3	431.5	22 45 8.685	−832	− 5	159 39 10.4	58 5.9	−89	1.008 7480	2411	5 16	18 42
4	432.5	22 49 5.238	834	−11	160 37 16.3	58 7.8	−79	1.008 5069	2425	5 18	18 40
5	433.5	22 53 1.792	835	−16	161 35 24.1	58 9.8	−68	1.008 2644	2441	5 19	18 37
6	434.5	22 56 58.346	837	−18	162 33 33.9	58 11.8	−54	1.008 0203	2458	5 21	18 35
7	435.5	23 0 54.900	838	−17	163 31 45.7	58 13.8	−40	1.007 7745	2478	5 22	18 33
8	436.5	23 4 51.453	840	−13	164 29 59.5	58 15.9	−26	1.007 5267	2500	5 24	18 31
9	437.5	23 8 48.007	−842	− 6	165 28 15.4	58 18.0	−13	1.007 2767	2525	5 25	18 29
10	438.5	23 12 44.560	844	+ 2	166 26 33.4	58 20.1	− 2	1.007 0242	2552	5 27	18 27
11	439.5	23 16 41.114	846	+ 9	167 24 53.5	58 22.2	+ 6	1.006 7690	2583	5 28	18 24
12	440.5	23 20 37.667	848	+13	168 23 15.7	58 24.2	+13	1.006 5107	2613	5 30	18 22
13	441.5	23 24 34.221	849	+15	169 21 39.9	58 26.2	+16	1.006 2494	2647	5 31	18 20
14	442.5	23 28 30.774	851	+13	170 20 6.1	58 28.2	+15	1.005 9847	2680	5 33	18 18
15	443.5	23 32 27.327	−853	+ 8	171 18 34.3	58 30.0	+11	1.005 7167	2713	5 34	18 16
16	444.5	23 36 23.881	856	+ 2	172 17 4.3	58 31.8	+ 4	1.005 4454	2744	5 36	18 14
17	445.5	23 40 20.434	858	− 4	173 15 36.1	58 33.6	− 5	1.005 1710	2773	5 37	18 11
18	446.5	23 44 16.987	860	− 8	174 14 9.7	58 35.3	−16	1.004 8937	2799	5 39	18 9
19	447.5	23 48 13.540	862	− 9	175 12 45.0	58 37.1	−27	1.004 6138	2821	5 40	18 7
20	448.5	23 52 10.094	864	− 8	176 11 22.1	58 38.7	−39	1.004 3317	2840	5 42	18 5
21	449.5	23 56 6.647	−866	− 5	177 10 0.8	58 40.3	−52	1.004 0477	2855	5 43	18 3
22	450.5	0 0 3.200	868	− 1	178 8 41.1	58 42.1	−63	1.003 7622	2867	5 45	18 0
23	451.5	0 3 59.753	870	+ 4	179 7 23.2	58 43.8	−72	1.003 4755	2876	5 46	17 58
24	452.5	0 7 56.307	872	+ 8	180 6 7.0	58 45.6	−79	1.003 1879	2883	5 48	17 56
25	453.5	0 11 52.860	874	+11	181 4 52.6	58 47.3	−85	1.002 8996	2886	5 49	17 54
26	454.5	0 15 49.413	877	+12	182 3 39.9	58 49.1	−87	1.002 6110	2886	5 51	17 52
27	455.5	0 19 45.967	−879	+11	183 2 29.0	58 50.9	−87	1.002 3224	2884	5 52	17 49
28	456.5	0 23 42.520	881	+ 8	184 1 19.9	58 52.9	−85	1.002 0340	2880	5 54	17 47
29	457.5	0 27 39.073	883	+ 3	185 0 12.8	58 54.8	−79	1.001 7460	2873	5 55	17 45
30	458.5	0 31 35.627	885	− 3	185 59 7.6	58 56.8	−70	1.001 4587	2865	5 57	17 43
Okt. 1	459.5	0 35 32.180	887	− 9	186 58 4.4	58 58.8	−60	1.001 1722	2855	5 58	17 41
2	460.5	0 39 28.733	889	−14	187 57 3.2	59 1.0	−47	1.000 8867	2846	6 0	17 38
3	461.5	0 43 25.286	−891	−17	188 56 4.2	59 3.2	−34	1.000 6021	2837	6 1	17 36
4	462.5	0 47 21.840	893	−17	189 55 7.4	59 5.5	−19	1.000 3184	2829	6 3	17 34
5	463.5	0 51 18.393	895	−13	190 54 12.9	59 7.8	− 4	1.000 0355	2822	6 5	17 32
6	464.5	0 55 14.947	897	− 7	191 53 20.7	59 10.1	+ 9	0.999 7533	2818	6 6	17 30
7	465.5	0 59 11.500	899	0	192 52 30.8	59 12.5	+22	0.999 4715	2815	6 8	17 28
8	466.5	1 3 8.054	900	+ 8	193 51 43.3	59 14.8	+32	0.999 1900	2816	6 9	17 26
9	467.5	1 7 4.607	−902	+13	194 50 58.1	59 17.2	+38	0.998 9084	2818	6 11	17 23
10	468.5	1 11 1.161	904	+15	195 50 15.3	59 19.5	+42	0.998 6266	2823	6 12	17 21
11	469.5	1 14 57.715	906	+13	196 49 34.8	59 21.7	+42	0.998 3443	2831	6 14	17 19
12	470.5	1 18 54.269	907	+10	197 48 56.5	59 24.0	+40	0.998 0612	2838	6 16	17 17
13	471.5	1 22 50.822	909	+ 4	198 48 20.5	59 26.1	+34	0.997 7774	2846	6 17	17 15
14	472.5	1 26 47.376	−910	− 2	199 47 46.6		+25	0.997 4928		6 19	17 13

Tag		Wochentag	0ʰ Weltzeit: Zeitgleichung (Wahre Zeit *minus* Mittlere Zeit)		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1947			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Okt.	14	Di	+13 41.24	14.07	13 13 6.14	3 42.48	− 7 44 43.2	22 24.7	65.03	16 3.92
	15	Mi	13 55.31	13.54	13 16 48.62	3 43.01	8 7 7.9	22 17.8	65.10	16 4.19
	16	Do	14 8.85	12.99	13 20 31.63	3 43.56	8 29 25.7	22 10.7	65.18	16 4.47
	17	Fr	14 21.84	12.42	13 24 15.19	3 44.14	8 51 36.4	22 3.0	65.27	16 4.75
	18	Sa	14 34.26	11.84	13 27 59.33	3 44.71	9 13 39.4	21 55.0	65.35	16 5.02
	19	So	14 46.10	11.25	13 31 44.04	3 45.31	9 35 34.4	21 46.6	65.44	16 5.30
	20	Mo	+14 57.35	10.63	13 35 29.35	3 45.92	− 9 57 21.0	21 37.8	65.53	16 5.58
	21	Di	15 7.98	10.01	13 39 15.27	3 46.55	10 18 58.8	21 28.5	65.63	16 5.86
	22	Mi	15 17.99	9.36	13 43 1.82	3 47.19	10 40 27.3	21 18.9	65.72	16 6.14
	23	Do	15 27.35	8.70	13 46 49.01	3 47.86	11 1 46.2	21 8.9	65.82	16 6.41
	24	Fr	15 36.05	8.03	13 50 36.87	3 48.52	11 22 55.1	20 58.5	65.92	16 6.68
	25	Sa	15 44.08	7.34	13 54 25.39	3 49.21	11 43 53.6	20 47.6	66.02	16 6.96
	26	So	+15 51.42	6.64	13 58 14.60	3 49.92	−12 4 41.2	20 36.5	66.12	16 7.22
	27	Mo	15 58.06	5.91	14 2 4.52	3 50.64	12 25 17.7	20 25.0	66.23	16 7.49
	28	Di	16 3.97	5.18	14 5 55.16	3 51.38	12 45 42.7	20 13.0	66.33	16 7.75
	29	Mi	16 9.15	4.43	14 9 46.54	3 52.13	13 5 55.7	20 0.7	66.44	16 8.02
	30	Do	16 13.58	3.66	14 13 38.67	3 52.89	13 25 56.4	19 48.0	66.55	16 8.28
	31	Fr	16 17.24	2.88	14 17 31.56	3 53.68	13 45 44.4	19 34.9	66.66	16 8.53
Nov.	1	Sa	+16 20.12	2.08	14 21 25.24	3 54.48	−14 5 19.3	19 21.5	66.78	16 8.79
	2	So	16 22.20	1.27	14 25 19.72	3 55.28	14 24 40.8	19 7.6	66.89	16 9.03
	3	Mo	16 23.47	0.44	14 29 15.00	3 56.11	14 43 48.4	18 53.4	67.00	16 9.27
	4	Di	16 23.91	0.39	14 33 11.11	3 56.95	15 2 41.8	18 38.9	67.12	16 9.52
	5	Mi	16 23.52	1.23	14 37 8.06	3 57.79	15 21 20.7	18 23.8	67.24	16 9.76
	6	Do	16 22.29	2.08	14 41 5.85	3 58.63	15 39 44.5	18 8.4	67.35	16 10.00
	7	Fr	+16 20.21	2.93	14 45 4.48	3 59.49	−15 57 52.9	17 52.6	67.47	16 10.23
	8	Sa	16 17.28	3.79	14 49 3.97	4 0.35	16 15 45.5	17 36.4	67.59	16 10.47
	9	So	16 13.49	4.65	14 53 4.32	4 1.21	16 33 21.9	17 19.7	67.71	16 10.69
	10	Mo	16 8.84	5.51	14 57 5.53	4 2.06	16 50 41.6	17 2.5	67.83	16 10.93
	11	Di	16 3.33	6.37	15 1 7.59	4 2.92	17 7 44.1	16 45.0	67.95	16 11.15
	12	Mi	15 56.96	7.22	15 5 10.51	4 3.78	17 24 29.1	16 27.1	68.07	16 11.38
	13	Do	+15 49.74	8.07	15 9 14.29	4 4.62	−17 40 56.2	16 8.8	68.19	16 11.60
	14	Fr	15 41.67	8.91	15 13 18.91	4 5.47	17 57 5.0	15 49.9	68.31	16 11.83
	15	Sa	15 32.76	9.75	15 17 24.38	4 6.31	18 12 54.9	15 30.7	68.43	16 12.05
	16	So	15 23.01	10.59	15 21 30.69	4 7.15	18 28 25.6	15 11.1	68.55	16 12.26
	17	Mo	15 12.42	11.42	15 25 37.84	4 7.97	18 43 36.7	14 51.1	68.66	16 12.48
	18	Di	15 1.00	12.23	15 29 45.81	4 8.79	18 58 27.8	14 30.7	68.78	16 12.70
	19	Mi	+14 48.77	13.05	15 33 54.60	4 9.61	−19 12 58.5	14 9.9	68.89	16 12.91
	20	Do	14 35.72	13.86	15 38 4.21	4 10.41	19 27 8.4	13 48.8	69.01	16 13.12
	21	Fr	14 21.86	14.65	15 42 14.62	4 11.21	19 40 57.2	13 27.3	69.12	16 13.33
	22	Sa	14 7.21	15.44	15 46 25.83	4 12.00	19 54 24.5	13 5.4	69.23	16 13.53
	23	So	13 51.77	16.21	15 50 37.83	4 12.77	20 7 29.9	12 43.1	69.34	16 13.73
	24	Mo	+13 35.56		15 54 50.60		−20 20 13.0		69.45	16 13.92

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1947.0 Länge		Breite	R		Aufgang (in +50° Breite, 0h Länge)	Untergang (in +50° Breite, 0h Länge)
1947	2432	h m s	s in 0.001		° ′ ″	′ ″	″ in 0.01			h m	h m
Okt. 14	472.5	1 26 47.376	−910	−2	199 47 46.6	59 28.2	+25	0.997 4928	2855	6 19	17 13
15	473.5	1 30 43.930	912	−7	200 47 14.8	59 30.2	+15	0.997 2073	2861	6 20	17 11
16	474.5	1 34 40.484	913	−10	201 46 45.0	59 32.1	+4	0.996 9212	2866	6 22	17 9
17	475.5	1 38 37.038	914	−10	202 46 17.1	59 33.9	−9	0.996 6346	2868	6 24	17 7
18	476.5	1 42 33.592	916	−7	203 45 51.0	59 35.8	−22	0.996 3478	2867	6 25	17 5
19	477.5	1 46 30.147	917	−3	204 45 26.8	59 37.6	−34	0.996 0611	2863	6 27	17 3
20	478.5	1 50 26.701	−918	+2	205 45 4.4	59 39.3	−43	0.995 7748	2855	6 28	17 1
21	479.5	1 54 23.255	919	+6	206 44 43.7	59 41.1	−51	0.995 4893	2845	6 30	16 59
22	480.5	1 58 19.809	920	+10	207 44 24.8	59 42.9	−58	0.995 2048	2831	6 32	16 57
23	481.5	2 2 16.364	921	+12	208 44 7.7	59 44.5	−61	0.994 9217	2814	6 33	16 55
24	482.5	2 6 12.919	921	+11	209 43 52.2	59 46.3	−62	0.994 6403	2795	6 35	16 53
25	483.5	2 10 9.473	922	+9	210 43 38.5	59 48.1	−60	0.994 3608	2772	6 37	16 51
26	484.5	2 14 6.028	−923	+4	211 43 26.6	59 49.8	−55	0.994 0836	2746	6 38	16 49
27	485.5	2 18 2.583	923	−1	212 43 16.4	59 51.6	−48	0.993 8090	2718	6 40	16 47
28	486.5	2 21 59.138	924	−8	213 43 8.0	59 53.4	−37	0.993 5372	2687	6 42	16 46
29	487.5	2 25 55.693	924	−13	214 43 1.4	59 55.3	−24	0.993 2685	2653	6 43	16 44
30	488.5	2 29 52.248	924	−17	215 42 56.7	59 57.2	−11	0.993 0032	2618	6 45	16 42
31	489.5	2 33 48.803	925	−17	216 42 53.9	59 59.2	+4	0.992 7414	2584	6 47	16 40
Nov. 1	490.5	2 37 45.358	−925	−14	217 42 53.1	60 1.2	+19	0.992 4830	2548	6 48	16 39
2	491.5	2 41 41.914	925	−9	218 42 54.3	60 3.3	+34	0.992 2282	2515	6 50	16 37
3	492.5	2 45 38.469	925	−1	219 42 57.6	60 5.4	+47	0.991 9767	2482	6 52	16 35
4	493.5	2 49 35.025	924	+7	220 43 3.0	60 7.5	+58	0.991 7285	2452	6 53	16 34
5	494.5	2 53 31.580	924	+13	221 43 10.5	60 9.7	+66	0.991 4833	2425	6 55	16 32
6	495.5	2 57 28.136	924	+16	222 43 20.2	60 11.8	+70	0.991 2408	2400	6 57	16 30
7	496.5	3 1 24.692	−923	+15	223 43 32.0	60 13.9	+71	0.991 0008	2379	6 58	16 29
8	497.5	3 5 21.248	922	+12	224 43 45.9	60 16.0	+69	0.990 7629	2357	7 0	16 27
9	498.5	3 9 17.804	922	+6	225 44 1.9	60 17.9	+64	0.990 5272	2339	7 2	16 26
10	499.5	3 13 14.360	921	0	226 44 19.8	60 19.8	+56	0.990 2933	2322	7 3	16 24
11	500.5	3 17 10.916	920	−6	227 44 39.6	60 21.7	+46	0.990 0611	2306	7 5	16 23
12	501.5	3 21 7.473	919	−9	228 45 1.3	60 23.4	+34	0.989 8305	2289	7 6	16 21
13	502.5	3 25 4.029	−918	−10	229 45 24.7	60 25.0	+22	0.989 6016	2271	7 8	16 20
14	503.5	3 29 0.586	917	−8	230 45 49.7	60 26.7	+10	0.989 3745	2253	7 10	16 19
15	504.5	3 32 57.142	916	−5	231 46 16.4	60 28.1	−2	0.989 1492	2233	7 11	16 17
16	505.5	3 36 53.699	914	0	232 46 44.5	60 29.6	−13	0.988 9259	2209	7 13	16 16
17	506.5	3 40 50.256	913	+5	233 47 14.1	60 31.0	−21	0.988 7050	2183	7 15	16 15
18	507.5	3 44 46.813	911	+9	234 47 45.1	60 32.2	−28	0.988 4867	2155	7 16	16 14
19	508.5	3 48 43.370	−909	+11	235 48 17.3	60 33.6	−32	0.988 2712	2124	7 18	16 12
20	509.5	3 52 39.927	908	+11	236 48 50.9	60 34.8	−34	0.988 0588	2090	7 19	16 11
21	510.5	3 56 36.484	906	+9	237 49 25.7	60 36.1	−32	0.987 8498	2054	7 21	16 10
22	511.5	4 0 33.042	904	+6	238 50 1.8	60 37.2	−28	0.987 6444	2014	7 23	16 9
23	512.5	4 4 29.599	902	0	239 50 39.0	60 38.4	−21	0.987 4430	1972	7 24	16 8
24	513.5	4 8 26.157	−900	−6	240 51 17.4		−12	0.987 2458		7 26	16 7

Sonne 1947

Tag		Wochentag	Zeitgleichung Wahre Zeit *minus* Mittlere Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
			0h Weltzeit							
1947			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Nov.	24	Mo	+13 35.56	16.98	15 54 50.60	4 13.53	−20 20 13.0	12 20.7	69.45	16 13.92
	25	Di	13 18.58	17.73	15 59 4.13	4 14.29	20 32 33.7	11 57.7	69.56	16 14.11
	26	Mi	13 0.85	18.47	16 3 18.42	4 15.03	20 44 31.4	11 34.5	69.66	16 14.29
	27	Do	12 42.38	19.21	16 7 33.45	4 15.77	20 56 5.9	11 11.0	69.76	16 14.48
	28	Fr	12 23.17	19.93	16 11 49.22	4 16.49	21 7 16.9	10 47.2	69.86	16 14.65
	29	Sa	12 3.24	20.64	16 16 5.71	4 17.19	21 18 4.1	10 23.0	69.96	16 14.82
	30	So	+11 42.60	21.33	16 20 22.90	4 17.89	−21 28 27.1	9 58.7	70.05	16 14.98
Dez.	1	Mo	11 21.27	22.02	16 24 40.79	4 18.58	21 38 25.8	9 33.9	70.15	16 15.14
	2	Di	10 59.25	22.67	16 28 59.37	4 19.23	21 47 59.7	9 9.0	70.24	16 15.30
	3	Mi	10 36.58	23.32	16 33 18.60	4 19.88	21 57 8.7	8 43.8	70.32	16 15.45
	4	Do	10 13.26	23.95	16 37 38.48	4 20.50	22 5 52.5	8 18.2	70.40	16 15.59
	5	Fr	9 49.31	24.54	16 41 58.98	4 21.11	22 14 10.7	7 52.5	70.48	16 15.73
	6	Sa	+ 9 24.77	25.12	16 46 20.09	4 21.68	−22 22 3.2	7 26.4	70.56	16 15.86
	7	So	8 59.65	25.67	16 50 41.77	4 22.22	22 29 29.6	7 0.2	70.64	16 15.99
	8	Mo	8 33.98	26.19	16 55 3.99	4 22.74	22 36 29.8	6 33.7	70.71	16 16.11
	9	Di	8 7.79	26.67	16 59 26.73	4 23.23	22 43 3.5	6 6.9	70.78	16 16.24
	10	Mi	7 41.12	27.12	17 3 49.96	4 23.69	22 49 10.4	5 39.9	70.84	16 16.36
	11	Do	7 14.00	27.55	17 8 13.65	4 24.11	22 54 50.3	5 12.7	70.90	16 16.47
	12	Fr	+ 6 46.45	27.94	17 12 37.76	4 24.49	−23 0 3.0	4 45.5	70.95	16 16.59
	13	Sa	6 18.51	28.29	17 17 2.25	4 24.85	23 4 48.5	4 17.9	71.00	16 16.70
	14	So	5 50.22	28.60	17 21 27.10	4 25.16	23 9 6.4	3 50.2	71.04	16 16.80
	15	Mo	5 21.62	28.89	17 25 52.26	4 25.45	23 12 56.6	3 22.4	71.08	16 16.91
	16	Di	4 52.73	29.14	17 30 17.71	4 25.70	23 16 19.0	2 54.6	71.12	16 17.00
	17	Mi	4 23.59	29.35	17 34 43.41	4 25.91	23 19 13.6	2 26.5	71.15	16 17.09
	18	Do	+ 3 54.24	29.52	17 39 9.32	4 26.08	−23 21 40.1	1 58.4	71.18	16 17.18
	19	Fr	3 24.72	29.67	17 43 35.40	4 26.23	23 23 38.5	1 30.2	71.21	16 17.27
	20	Sa	2 55.05	29.77	17 48 1.63	4 26.33	23 25 8.7	1 2.0	71.23	16 17.35
	21	So	2 25.28	29.84	17 52 27.96	4 26.40	23 26 10.7	0 33.7	71.24	16 17.43
	22	Mo	1 55.44	29.88	17 56 54.36	4 26.43	23 26 44.4	0 5.4	71.25	16 17.50
	23	Di	1 25.56	29.88	18 1 20.79	4 26.44	23 26 49.8	0 22.8	71.26	16 17.56
	24	Mi	+ 0 55.68	29.85	18 5 47.23	4 26.41	−23 26 27.0	0 51.1	71.26	16 17.63
	25	Do	+ 0 25.83	29.79	18 10 13.64	4 26.35	23 25 35.9	1 19.3	71.25	16 17.68
	26	Fr	− 0 3.96	29.70	18 14 39.99	4 26.25	23 24 16.6	1 47.5	71.24	16 17.73
	27	Sa	0 33.66	29.58	18 19 6.24	4 26.14	23 22 29.1	2 15.7	71.23	16 17.77
	28	So	1 3.24	29.43	18 23 32.38	4 25.99	23 20 13.4	2 43.7	71.21	16 17.81
	29	Mo	1 32.67	29.25	18 27 58.37	4 25.81	23 17 29.7	3 11.8	71.19	16 17.84
	30	Di	− 2 1.92	29.05	18 32 24.18	4 25.61	−23 14 17.9	3 39.7	71.16	16 17.86
	31	Mi	2 30.97	28.83	18 36 49.79	4 25.38	23 10 38.2	4 7.4	71.13	16 17.88
	32	Do	− 2 59.80		18 41 15.17		−23 6 30.8		71.09	16 17.89

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1947.0 Länge	Diff.	Breite	R	Diff.	Aufgang	Untergang
	0h Weltzeit									in {+50° Breite, 0h Länge}	
1947	2432	h m s	s in 0.001		° ′ ″	′ ″	″ in 0.01			h m	h m
Nov. 24	513.5	4 8 26.157	−900	− 6	240 51 17.4	60 39.6	− 12	0.987 2458	1926	7 26	16 7
25	514.5	4 12 22.714	897	−12	241 51 57.0	60 40.7	− 1	0.987 0532	1877	7 27	16 6
26	515.5	4 16 19.272	895	−17	242 52 37.7	60 41.9	+ 13	0.986 8655	1825	7 29	16 5
27	516.5	4 20 15.830	893	−19	243 53 19.6	60 43.1	+ 27	0.986 6830	1771	7 30	16 5
28	517.5	4 24 12.387	890	−16	244 54 2.7	60 44.4	+ 41	0.986 5059	1715	7 32	16 4
29	518.5	4 28 8.945	888	−11	245 54 47.1	60 45.7	+ 56	0.986 3344	1659	7 33	16 3
30	519.5	4 32 5.503	−885	− 4	246 55 32.8	60 47.1	+ 69	0.986 1685	1603	7 34	16 2
Dez. 1	520.5	4 36 2.061	882	+ 5	247 56 19.9	60 48.4	+ 81	0.986 0082	1548	7 36	16 2
2	521.5	4 39 58.619	880	+12	248 57 8.3	60 49.9	+ 90	0.985 8534	1495	7 37	16 1
3	522.5	4 43 55.178	877	+16	249 57 58.2	60 51.2	+ 95	0.985 7039	1445	7 38	16 1
4	523.5	4 47 51.736	874	+17	250 58 49.4	60 52.7	+ 97	0.985 5594	1398	7 40	16 0
5	524.5	4 51 48.294	871	+14	251 59 42.1	60 54.1	+ 96	0.985 4196	1353	7 41	16 0
6	525.5	4 55 44.853	−868	+ 9	253 0 36.2	60 55.4	+ 91	0.985 2843	1312	7 42	15 59
7	526.5	4 59 41.411	865	+ 2	254 1 31.6	60 56.7	+ 84	0.985 1531	1272	7 43	15 59
8	527.5	5 3 37.969	862	− 4	255 2 28.3	60 57.9	+ 75	0.985 0259	1235	7 44	15 59
9	528.5	5 7 34.528	859	− 8	256 3 26.2	60 59.0	+ 64	0.984 9024	1199	7 46	15 58
10	529.5	5 11 31.086	856	−10	257 4 25.2	61 0.0	+ 51	9.984 7825	1164	7 47	15 58
11	530.5	5 15 27.645	852	− 8	258 5 25.2	61 1.0	+ 39	0.984 6661	1131	7 48	15 58
12	531.5	5 19 24.204	−849	− 5	259 6 26.2	61 1.9	+ 27	0.984 5530	1096	7 49	15 58
13	532.5	5 23 20.763	846	− 1	260 7 28.1	61 2.7	+ 16	0.984 4434	1062	7 50	15 58
14	533.5	5 27 17.321	842	+ 4	261 8 30.8	61 3.3	+ 7	0.984 3372	1025	7 50	15 58
15	534.5	5 31 13.880	839	+ 8	262 9 34.1	61 4.0	− 1	0.984 2347	988	7 51	15 58
16	535.5	5 35 10.439	835	+10	263 10 38.1	61 4.4	− 6	0.984 1359	949	7 52	15 58
17	536.5	5 39 6.998	832	+11	264 11 42.5	61 5.0	− 9	0.984 0410	908	7 53	15 59
18	537.5	5 43 3.557	−828	+10	265 12 47.5	61 5.3	− 10	0.983 9502	866	7 54	15 59
19	538.5	5 47 0.115	825	+ 7	266 13 52.8	61 5.6	− 7	0.983 8636	820	7 54	15 59
20	539.5	5 50 56.674	821	+ 2	267 14 58.4	61 6.0	− 1	0.983 7816	772	7 55	16 0
21	540.5	5 54 53.233	818	− 4	268 16 4.4	61 6.1	+ 7	0.983 7044	722	7 56	16 0
22	541.5	5 58 49.792	814	−11	269 17 10.5	61 6.4	+ 17	0.983 6322	670	7 56	16 1
23	542.5	6 2 46.351	811	−16	270 18 16.9	61 6.5	+ 29	0.983 5652	613	7 57	16 1
24	543.5	6 6 42.910	−807	−19	271 19 23.4	61 6.7	+ 43	0.983 5039	554	7 57	16 2
25	544.5	6 10 39.469	804	−19	272 20 30.1	61 6.9	+ 57	0.983 4485	491	7 58	16 2
26	545.5	6 14 36.028	800	−15	273 21 37.0	61 7.0	+ 71	0.983 3994	427	7 58	16 3
27	546.5	6 18 32.587	797	− 8	274 22 44.0	61 7.3	+ 84	0.983 3567	360	7 58	16 4
28	547.5	6 22 29.145	793	+ 1	275 23 51.3	61 7.5	+ 95	0.983 3207	294	7 58	16 4
29	548.5	6 26 25.704	790	+ 9	276 24 58.8	61 7.8	+104	0.983 2913	227	7 59	16 5
30	549.5	6 30 22.263	−786	+15	277 26 6.6	61 8.1	+109	0.983 2686	163	7 59	16 6
31	550.5	6 34 18.822	783	+17	278 27 14.7	61 8.6	+112	0.983 2523	101	7 59	16 7
32	551.5	6 38 15.381	−779	+16	279 28 23.3		+111	0.983 2422		7 59	16 8

0h Weltzeit	Mittleres Äquinoktium 1947.0											
	X	Δ1	Δ2	ΔX	Y	Δ1	Δ2	ΔY	Z	Δ1	Δ2	ΔZ
1947												
Jan. 0	+0.149 087	+17 262	−48	+1	−0.891 684	+2 592	+277	0	−0.386 721	+1 125	+121	+3
1	0.166 349	17 208	54	−5	0.889 092	2 869	277	+4	0.385 596	1 245	120	0
2	0.183 557	17 149	59	−3	0.886 223	3 144	275	+1	0.384 351	1 364	119	−3
3	0.200 706	17 086	63	+2	0.883 079	3 417	273	−1	0.382 987	1 483	119	−3
4	0.217 792	17 017	69	+1	0.879 662	3 690	273	+3	0.381 504	1 601	118	−5
5	0.234 809	16 944	73	+2	0.875 972	3 961	271	+1	0.379 903	1 718	117	−5
6	+0.251 753	+16 865	−79	−4	−0.872 011	+4 231	+270	+1	−0.378 185	+1 836	+118	+2
7	0.268 618	16 781	84	−5	0.867 780	4 499	268	−1	0.376 349	1 952	116	−3
8	0.285 399	16 694	87	+2	0.863 281	4 766	267	−1	0.374 397	2 067	115	−5
9	0.302 093	16 601	93	+1	0.858 515	5 033	267	+3	0.372 330	2 183	116	+1
10	0.318 694	16 504	97	+2	0.853 482	5 297	264	−4	0.370 147	2 297	114	−1
11	0.335 198	16 400	104	−4	0.848 185	5 560	263	−3	0.367 850	2 412	115	+4
12	+0.351 598	+16 293	−107	+3	−0.842 625	+5 823	+263	+3	−0.365 438	+2 525	+113	0
13	0.367 891	16 181	112	+2	0.836 802	6 083	260	0	0.362 913	2 638	113	+1
14	0.384 072	16 062	119	−4	0.830 719	6 342	259	+2	0.360 275	2 750	112	0
15	0.400 134	15 939	123	−1	0.824 377	6 599	257	+3	0.357 525	2 862	112	+2
16	0.416 073	15 811	128	0	0.817 778	6 855	256	+5	0.354 663	2 972	110	−4
17	0.431 884	15 677	134	−2	0.810 923	7 108	253	+1	0.351 691	3 082	110	−2
18	+0.447 561	+15 539	−138	+3	−0.803 815	+7 358	+250	−3	−0.348 609	+3 190	+108	−4
19	0.463 100	15 395	144	0	0.796 457	7 608	250	+4	0.345 419	3 299	109	+4
20	0.478 495	15 247	148	+1	0.788 849	7 854	246	−1	0.342 120	3 406	107	+2
21	0.493 742	15 093	154	−3	0.780 995	8 097	243	−3	0.338 714	3 511	105	−2
22	0.508 835	14 934	159	−5	0.772 898	8 339	242	+2	0.335 203	3 616	105	+1
23	0.523 769	14 770	164	−3	0.764 559	8 577	238	−1	0.331 587	3 720	104	+1
24	+0.538 539	+14 603	−167	+4	−0.755 982	+8 812	+235	−2	−0.327 867	+3 821	+101	−4
25	0.553 142	14 429	174	−1	0.747 170	9 045	233	0	0.324 046	3 923	102	+4
26	0.567 571	14 252	177	+4	0.738 125	9 273	228	−3	0.320 123	4 022	99	0
27	0.581 823	14 070	182	+4	0.728 852	9 500	227	+2	0.316 101	4 120	98	0
28	0.595 893	13 884	186	+5	0.719 352	9 722	222	−3	0.311 981	4 217	97	+3
29	0.609 777	13 694	190	+4	0.709 630	9 941	219	−3	0.307 764	4 312	95	+1
30	+0.623 471	+13 499	−195	−1	−0.699 689	+10 156	+215	−4	−0.303 452	+4 405	+ 93	+1
31	0.636 970	13 301	198	0	0.689 533	10 369	213	+1	0.299 047	4 498	93	+5
Febr. 1	0.650 271	13 099	202	0	0.679 164	10 577	208	−3	0.294 549	4 588	90	+1
2	0.663 370	12 894	205	+2	0.668 587	10 782	205	−2	0.289 961	4 677	89	0
3	0.676 264	12 685	209	+2	0.657 805	10 984	202	0	0.285 284	4 764	87	−1
4	0.688 949	12 473	212	+2	0.646 821	11 182	198	−1	0.280 520	4 850	86	0
5	+0.701 422	+12 257	−216	+1	−0.635 639	+11 377	+195	+2	−0.275 670	+4 935	+ 85	+2
6	0.713 679	12 039	218	+5	0.624 262	11 569	192	+3	0.270 735	5 017	82	−2
7	0.725 718	11 816	223	0	0.612 693	11 757	188	+2	0.265 718	5 099	82	+4
8	0.737 534	11 591	225	+4	0.600 936	11 943	186	+3	0.260 619	5 179	80	+3
9	0.749 125	+11 361	230	0	0.588 993	+12 124	181	−4	0.255 440	+5 258	79	+4
10	+0.760 486		−232	+5	−0.576 869		+178	−5	−0.250 182		+ 77	+1

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit		Mittleres Äquinoktium 1947.0											
		X			ΔX	Y			ΔY	Z			ΔZ
1947													
Febr.	10	+0.760 486	+11 129	−232	+5	−0.576 869	+12 302	+178	−5	−0.250 182	+5 335	+ 77	+1
	11	0.771 615	10 893	236	+3	0.564 567	12 476	174	−5	0.244 847	5 410	75	+1
	12	0.782 508	10 653	240	0	0.552 091	12 647	171	+1	0.239 437	5 485	75	+5
	13	0.793 161	10 410	243	+2	0.539 444	12 815	168	+4	0.233 952	5 557	72	0
	14	0.803 571	10 164	246	+4	0.526 629	12 977	162	−3	0.228 395	5 628	71	−2
	15	0.813 735	9 915	249	+3	0.513 652	13 136	159	+2	0.222 767	5 696	68	−5
	16	+0.823 650	+ 9 661	−254	−4	−0.500 516	+13 292	+156	+5	−0.217 071	+5 764	+ 68	+1
	17	0.833 311	9 406	255	+2	0.487 224	13 442	150	−1	0.211 307	5 829	65	−1
	18	0.842 717	9 147	259	−2	0.473 782	13 588	146	−1	0.205 478	5 893	64	+2
	19	0.851 864	8 885	262	−3	0.460 194	13 731	143	+4	0.199 585	5 954	61	0
	20	0.860 749	8 620	265	−3	0.446 463	13 868	137	0	0.193 631	6 015	61	+5
	21	0.869 369	8 353	267	+1	0.432 595	14 001	133	+1	0.187 616	6 072	57	+1
	22	+0.877 722	+ 8 084	−269	+2	−0.418 594	+14 130	+129	+3	−0.181 544	+6 128	+ 56	+3
	23	0.885 806	7 811	273	−4	0.404 464	14 253	123	−2	0.175 416	6 182	54	+2
	24	0.893 617	7 536	275	−3	0.390 211	14 372	119	−2	0.169 234	6 233	51	+1
	25	0.901 153	7 261	275	+3	0.375 839	14 485	113	−4	0.163 001	6 283	50	+4
	26	0.908 414	6 982	279	−4	0.361 354	14 596	111	+4	0.156 718	6 331	48	+4
	27	0.915 396	6 702	280	−5	0.346 758	14 699	103	−4	0.150 387	6 376	45	0
	28	+0.922 098	+ 6 420	−282	−4	−0.332 059	+14 799	+100	0	−0.144 011	+6 419	+ 43	−2
März	1	0.928 518	6 138	282	0	0.317 260	14 894	95	+1	0.137 592	6 460	41	−3
	2	0.934 656	5 853	285	−3	0.302 366	14 984	90	+2	0.131 132	6 499	39	−2
	3	0.940 509	5 569	284	+3	0.287 382	15 070	86	+4	0.124 633	6 536	37	0
	4	0.946 078	5 282	287	−3	0.272 312	15 152	82	+5	0.118 097	6 572	36	+3
	5	0.951 360	4 995	287	0	0.257 160	15 228	76	0	0.111 525	6 604	32	−3
	6	+0.956 355	+ 4 706	−289	−2	−0.241 932	+15 301	+ 73	+3	−0.104 921	+6 636	+ 32	+3
	7	0.961 061	4 417	289	+3	0.226 631	15 369	68	+2	0.098 285	6 666	30	+3
	8	0.965 478	4 127	290	+4	0.211 262	15 433	64	+3	0.091 619	6 693	27	−4
	9	0.969 605	3 835	292	+3	0.195 829	15 493	60	+3	0.084 926	6 718	25	−5
	10	0.973 440	3 543	292	+4	0.180 336	15 548	55	+1	0.078 208	6 743	25	+3
	11	0.976 983	3 249	294	−2	0.164 788	15 598	50	−2	0.071 465	6 764	21	−3
	12	+0.980 232	+ 2 954	−295	−2	−0.149 190	+15 645	+ 47	+2	−0.064 701	+6 784	+ 20	0
	13	0.983 186	2 659	295	0	0.133 545	15 686	41	−2	0.057 917	6 803	19	+3
	14	0.985 845	2 362	297	−5	0.117 859	15 723	37	−2	0.051 114	6 818	15	−3
	15	0.988 207	2 064	298	−3	0.102 136	15 755	32	−4	0.044 296	6 832	14	−1
	16	0.990 271	1 767	297	+5	0.086 381	15 782	27	−5	0.037 464	6 844	12	+1
	17	0.992 038	1 469	298	+4	0.070 599	15 804	22	−5	0.030 620	6 854	10	+2
	18	+0.993 507	+ 1 170	−299	0	−0.054 795	+15 822	+ 18	+2	−0.023 766	+6 862	+ 8	+2
	19	0.994 677	870	300	−5	0.038 973	15 835	13	+5	0.016 904	6 867	5	−1
	20	0.995 547	570	300	−2	0.023 138	15 843	8	+5	0.010 037	6 871	4	+3
	21	0.996 117	+ 271	299	+4	−0.007 295	15 845	+ 2	−1	−0.003 166	6 872	+ 1	+1
	22	0.996 388	− 28	299	+5	+0.008 550	+15 843	− 2	+2	+0.003 706	+6 872	0	+3
	23	+0.996 360		−300	−2	+0.024 393		− 8	+1	+0.010 578		− 4	−5

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0^h Weltzeit	Mittleres Äquinoktium 1947.0												
	X			ΔX	Y			ΔY	Z			ΔZ
1947												
März 23	+0.996 360	−328	−300	−2	+0.024 393	+15 835	−8	+1	+0.010 578	+6 868	−4	−5
24	0.996 032	628	300	−3	0.040 228	15 823	12	+4	0.017 446	6 862	6	−4
25	0.995 404	925	297	+4	0.056 051	15 805	18	0	0.024 308	6 856	6	+4
26	0.994 479	1 223	298	0	0.071 856	15 783	22	+3	0.031 164	6 845	11	−4
27	0.993 256	1 520	297	−2	0.087 639	15 755	28	−1	0.038 009	6 834	11	+1
28	0.991 736	1 815	295	0	0.103 394	15 723	32	−2	0.044 843	6 819	15	−4
29	+0.989 921	−2 110	−295	−5	+0.119 117	+15 685	−38	−4	+0.051 662	+6 804	−15	+2
30	0.987 811	2 403	293	−3	0.134 802	15 644	41	+4	0.058 466	6 785	19	−3
31	0.985 408	2 695	292	−1	0.150 446	15 599	45	+5	0.065 251	6 765	20	0
April 1	0.982 713	2 984	289	+3	0.166 045	15 548	51	−2	0.072 016	6 743	22	+3
2	0.979 729	3 274	290	−5	0.181 593	15 493	55	−5	0.078 759	6 720	23	+3
3	0.976 455	3 562	288	−4	0.197 086	15 434	59	−4	0.085 479	6 693	27	−4
4	+0.972 893	−3 847	−285	+3	+0.212 520	+15 371	−63	−3	+0.092 172	+6 666	−27	+2
5	0.969 046	4 132	285	0	0.227 891	15 304	67	−2	0.098 838	6 637	29	+2
6	0.964 914	4 416	284	−2	0.243 195	15 233	71	−3	0.105 475	6 606	31	0
7	0.960 498	4 697	281	+2	0.258 428	15 157	76	−4	0.112 081	6 573	33	−2
8	0.955 801	4 979	282	−4	0.273 585	15 078	79	−1	0.118 654	6 538	35	−1
9	0.950 822	5 257	278	+2	0.288 663	14 993	85	−3	0.125 192	6 502	36	+4
10	+0.945 565	−5 536	−279	−3	+0.303 656	+14 906	−87	+5	+0.131 694	+6 464	−38	+4
11	0.940 029	5 811	275	+4	0.318 562	14 814	92	+4	0.138 158	6 424	40	+3
12	0.934 218	6 086	275	−1	0.333 376	14 717	97	−2	0.144 582	6 382	42	+2
13	0.928 132	6 359	273	−4	0.348 093	14 616	101	−3	0.150 964	6 339	43	+3
14	0.921 773	6 630	271	−2	0.362 709	14 511	105	−2	0.157 303	6 293	46	−3
15	0.915 143	6 899	269	0	0.377 220	14 401	110	−5	0.163 596	6 245	48	−3
16	+0.908 244	−7 166	−267	−1	+0.391 621	+14 287	−114	−3	+0.169 841	+6 197	−48	+2
17	0.901 078	7 431	265	−3	0.405 908	14 169	118	+1	0.176 038	6 145	52	−4
18	0.893 647	7 694	263	−4	0.420 077	14 047	122	+4	0.182 183	6 092	53	−3
19	0.885 953	7 955	261	−4	0.434 124	13 920	127	+4	0.188 275	6 037	55	+1
20	0.877 998	8 212	257	+3	0.448 044	13 789	131	+3	0.194 312	5 981	56	+5
21	0.869 786	8 467	255	+1	0.461 833	13 653	136	+2	0.200 293	5 922	59	+3
22	+0.861 319	−8 720	−253	−2	+0.475 486	+13 514	−139	+5	+0.206 215	+5 862	−60	+3
23	0.852 599	8 968	248	+2	0.489 000	13 370	144	+4	0.212 077	5 799	63	−2
24	0.843 631	9 215	247	−5	0.502 370	13 223	147	+5	0.217 876	5 735	64	0
25	0.834 416	9 458	243	−2	0.515 593	13 071	152	−2	0.223 611	5 670	65	+2
26	0.824 958	9 696	238	+4	0.528 664	12 915	156	−4	0.229 281	5 602	68	−3
27	0.815 262	9 932	236	−2	0.541 579	12 758	157	+4	0.234 883	5 533	69	−2
28	+0.805 330	−10 165	−233	−5	+0.554 337	+12 595	−163	−2	+0.240 416	+5 463	−70	−2
29	0.795 165	10 394	229	−4	0.566 932	12 430	165	+1	0.245 879	5 391	72	−4
30	0.784 771	10 620	226	−3	0.579 362	12 262	168	+3	0.251 270	5 317	74	−4
Mai 1	0.774 151	10 842	222	+1	0.591 624	12 090	172	0	0.256 587	5 244	73	+4
2	0.763 309	−11 061	219	+3	0.603 714	+11 916	174	+5	0.261 831	+5 167	77	−3
3	+0.752 248		−215	+4	+0.615 630		−177	+4	+0.266 998		−76	+1

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit		Mittleres Äquinoktium 1947.0											
		X			ΔX	Y			ΔY	Z			ΔZ
1947													
Mai	3	+0.752 248	−11 276	−215	+4	+0.615 630	+11 739	−177	+4	+0.266 998	+5 091	− 76	+1
	4	0.740 972	11 489	213	−4	0.627 369	11 558	181	+1	0.272 089	5 012	79	−5
	5	0.729 483	11 699	210	−4	0.638 927	11 375	183	+3	0.277 101	4 932	80	−4
	6	0.717 784	11 904	205	+2	0.650 302	11 189	186	+3	0.282 033	4 852	80	+1
	7	0.705 880	12 107	203	−1	0.661 491	10 999	190	−1	0.286 885	4 770	82	−1
	8	0.693 773	12 306	199	0	0.672 490	10 808	191	+3	0.291 655	4 686	84	−4
	9	+0.681 467	−12 503	−197	−4	+0.683 298	+10 612	−196	−4	+0.296 341	+4 601	− 85	−1
	10	0.668 964	12 695	192	0	0.693 910	10 413	199	−5	0.300 942	4 516	85	+5
	11	0.656 269	12 884	189	+1	0.704 323	10 213	200	+3	0.305 458	4 429	87	+5
	12	0.643 385	13 069	185	+1	0.714 536	10 009	204	0	0.309 887	4 341	88	+2
	13	0.630 316	13 252	183	−4	0.724 545	9 801	208	−3	0.314 228	4 251	90	−2
	14	0.617 064	13 430	178	+1	0.734 346	9 592	209	+4	0.318 479	4 160	91	−3
	15	+0.603 634	−13 604	−174	+4	+0.743 938	+ 9 380	−212	+4	+0.322 639	+4 068	− 92	−4
	16	0.590 030	13 774	170	+3	0.753 318	9 163	217	−4	0.326 707	3 974	94	−3
	17	0.576 256	13 941	167	−4	0.762 481	8 946	217	+2	0.330 681	3 880	94	+3
	18	0.562 315	14 104	163	−4	0.771 427	8 724	222	−3	0.334 561	3 785	95	+3
	19	0.548 211	14 262	158	0	0.780 151	8 500	224	−2	0.338 346	3 687	98	−4
	20	0.533 949	14 415	153	+4	0.788 651	8 274	226	−1	0.342 033	3 589	98	−3
	21	+0.519 534	−14 564	−149	+3	+0.796 925	+ 8 045	−229	−2	+0.345 622	+3 490	− 99	−3
	22	0.504 970	14 709	145	0	0.804 970	7 813	232	−4	0.349 112	3 389	101	−5
	23	0.490 261	14 848	139	+4	0.812 783	7 580	233	+1	0.352 501	3 288	101	−1
	24	0.475 413	14 983	135	+4	0.820 363	7 345	235	+4	0.355 789	3 186	102	−2
	25	0.460 430	15 113	130	+5	0.827 708	7 108	237	+3	0.358 975	3 083	103	−2
	26	0.445 317	15 238	125	+4	0.834 816	6 870	238	+3	0.362 058	2 979	104	−1
	27	+0.430 079	−15 359	−121	0	+0.841 686	+ 6 629	−241	−3	+0.365 037	+2 875	−104	+1
	28	0.414 720	15 476	117	−2	0.848 315	6 388	241	+1	0.367 912	2 770	105	+2
	29	0.399 244	15 587	111	+2	0.854 703	6 145	243	−2	0.370 682	2 665	105	+2
	30	0.383 657	15 695	108	−2	0.860 848	5 901	244	−2	0.373 347	2 559	106	−1
	31	0.367 962	15 798	103	+2	0.866 749	5 655	246	−5	0.375 906	2 452	107	−5
Juni	1	0.352 164	15 896	98	+3	0.872 404	5 409	246	−1	0.378 358	2 345	107	−4
	2	+0.336 268	−15 991	− 95	−2	+0.877 813	+ 5 160	−249	−4	+0.380 703	+2 237	−108	−4
	3	0.320 277	16 081	90	0	0.882 973	4 912	248	+4	0.382 940	2 129	108	0
	4	0.304 196	16 167	86	+1	0.887 885	4 661	251	0	0.385 069	2 021	108	+5
	5	0.288 029	16 248	81	+2	0.892 546	4 410	251	+4	0.387 090	1 912	109	+4
	6	0.271 781	16 326	78	0	0.896 956	4 157	253	+1	0.389 002	1 803	109	+3
	7	0.255 455	16 398	72	+5	0.901 113	3 903	254	+3	0.390 805	1 692	111	−4
	8	+0.239 057	−16 467	− 69	+2	+0.905 016	+ 3 649	−254	+4	+0.392 497	+1 582	−110	0
	9	0.222 590	16 530	63	+5	0.908 665	3 392	257	−3	0.394 079	1 471	111	−1
	10	0.206 060	16 590	60	−2	0.912 057	3 135	257	−2	0.395 550	1 359	112	−2
	11	0.189 470	16 646	56	−4	0.915 192	2 877	258	−2	0.396 909	1 248	111	+5
	12	0.172 824	−16 695	49	+3	0.918 069	+ 2 617	260	−3	0.398 157	+1 136	112	+3
	13	+0.156 129		− 47	−2	+0.920 686		−259	+2	+0.399 293		−113	−2

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit	Mittleres Äquinoktium 1947.0											
	X			ΔX	Y			ΔY	Z			ΔZ
1947												
Juni 13	+0.156 129	−16 742	− 47	−2	+0.920 686	+ 2 358	−259	+2	+0.399 293	+1 023	−113	−2
14	0.139 387	16 782	40	+5	0.923 044	2 096	262	−4	0.400 316	909	114	−3
15	0.122 605	16 818	36	+3	0.925 140	1 834	262	−3	0.401 225	797	112	+4
16	0.105 787	16 850	32	−2	0.926 974	1 572	262	+1	0.402 022	682	115	−3
17	0.088 937	16 875	25	+4	0.928 546	1 308	264	−5	0.402 704	568	114	−1
18	0.072 062	16 897	22	−3	0.929 854	1 044	264	−5	0.403 272	453	115	−1
19	+0.055 165	−16 912	− 15	+2	+0.930 898	+ 780	−264	−2	+0.403 725	+ 339	−114	+4
20	0.038 253	16 922	10	+3	0.931 678	515	265	−2	0.404 064	224	115	+4
21	0.021 331	16 927	5	0	0.932 193	+ 252	263	+4	0.404 288	+ 110	114	+5
22	+0.004 404	16 928	− 1	−4	0.932 445	− 13	265	−2	0.404 398	− 5	115	−3
23	−0.012 524	16 922	+ 6	+2	0.932 432	276	263	+4	0.404 393	120	115	−5
24	0.029 446	16 913	9	−3	0.932 156	539	263	+3	0.404 273	234	114	−3
25	−0.046 359	−16 897	+ 16	+4	+0.931 617	− 801	−262	+1	+0.404 039	− 348	−114	−2
26	0.063 256	16 878	19	−3	0.930 816	1 064	263	−5	0.403 691	462	114	−2
27	0.080 134	16 855	23	−5	0.929 752	1 325	261	−1	0.403 229	575	113	0
28	0.096 989	16 825	30	+3	0.928 427	1 585	260	+2	0.402 654	688	113	−1
29	0.113 814	16 793	32	−1	0.926 842	1 846	261	−3	0.401 966	801	113	−4
30	0.130 607	16 754	39	+4	0.924 996	2 104	258	+3	0.401 165	914	113	−4
Juli 1	−0.147 361	−16 713	+ 41	−4	+0.922 892	− 2 363	−259	−4	+0.400 251	−1 026	−112	+1
2	0.164 074	16 667	46	−4	0.920 529	2 622	259	−5	0.399 225	1 137	111	+5
3	0.180 741	16 616	51	+1	0.917 907	2 878	256	+4	0.398 088	1 249	112	+2
4	0.197 357	16 561	55	+2	0.915 029	3 134	256	+3	0.396 839	1 360	111	+3
5	0.213 918	16 501	60	+5	0.911 895	3 391	257	−2	0.395 479	1 470	110	+5
6	0.230 419	16 437	64	+3	0.908 504	3 645	254	+4	0.394 009	1 581	111	−2
7	−0.246 856	−16 369	+ 68	0	+0.904 859	− 3 899	−254	+4	+0.392 428	−1 691	−110	−2
8	0.263 225	16 296	73	+1	0.900 960	4 152	253	+4	0.390 737	1 801	110	−3
9	0.279 521	16 219	77	−1	0.896 808	4 404	252	+3	0.388 936	1 910	109	+2
10	0.295 740	16 137	82	+1	0.892 404	4 656	252	0	0.387 026	2 018	108	+3
11	0.311 877	16 051	86	−2	0.887 748	4 906	250	+2	0.385 008	2 128	110	−4
12	0.327 928	15 960	91	−3	0.882 842	5 155	249	+3	0.382 880	2 235	107	+4
13	−0.343 888	−15 865	+ 95	−5	+0.877 687	− 5 404	−249	−1	+0.380 645	−2 343	−108	+2
14	0.359 753	15 765	100	−1	0.872 283	5 650	246	+3	0.378 302	2 450	107	+4
15	0.375 518	15 659	106	+4	0.866 633	5 896	246	−3	0.375 852	2 556	106	+5
16	0.391 177	15 549	110	+2	0.860 737	6 141	245	−5	0.373 296	2 662	106	+1
17	0.406 726	15 435	114	−2	0.854 596	6 383	242	0	0.370 634	2 768	106	−4
18	0.422 161	15 315	120	+3	0.848 213	6 623	240	+3	0.367 866	2 872	104	−1
19	−0.437 476	−15 190	+125	+4	+0.841 590	− 6 862	−239	−2	+0.364 994	−2 976	−104	−4
20	0.452 666	15 061	129	+1	0.834 728	7 099	237	−4	0.362 018	3 079	103	−1
21	0.467 727	14 928	133	−3	0.827 629	7 332	233	+4	0.358 939	3 180	101	+4
22	0.482 655	14 790	138	+1	0.820 297	7 564	232	0	0.355 759	3 281	101	+3
23	0.497 445	−14 647	143	+3	0.812 733	− 7 793	229	−1	0.352 478	−3 380	99	+5
24	−0.512 092		+145	−3	+0.804 940		−227	0	+0.349 098		− 98	+3

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit	Mittleres Äquinoktium 1947.0											
	X			ΔX	Y			ΔY	Z			ΔZ
1947.												
Juli 24	−0.512 092	−14 502	+145	−3	+0.804 940	− 8 020	−227	0	+0.349 098	−3 478	− 98	+3
25	0.526 594	14 351	151	0	0.796 920	8 244	224	+3	0.345 620	3 576	98	−3
26	0.540 945	14 198	153	−5	0.788 676	8 465	221	+3	0.342 044	3 673	97	−3
27	0.555 143	14 040	158	−1	0.780 211	8 685	220	−3	0.338 371	3 767	94	+4
28	0.569 183	13 879	161	0	0.771 526	8 902	217	−1	0.334 604	3 861	94	+3
29	0.583 062	13 713	166	+2	0.762 624	9 115	213	+4	0.330 743	3 954	93	+1
30	−0.596 775	−13 545	+168	−4	+0.753 509	− 9 328	−213	−3	+0.326 789	−4 046	− 92	0
31	0.610 320	13 373	172	−3	0.744 181	9 537	209	0	0.322 743	4 136	90	+1
Aug. 1	0.623 693	13 197	176	+1	0.734 644	9 743	206	+3	0.318 607	4 226	90	−3
2	0.636 890	13 017	180	+3	0.724 901	9 948	205	−2	0.314 381	4 315	89	−5
3	0.649 907	12 835	182	0	0.714 953	10 150	202	−1	0.310 066	4 402	87	0
4	0.662 742	12 648	187	+5	0.704 803	10 348	198	+4	0.305 664	4 488	86	+3
5	−0.675 390	−12 458	+190	+5	+0.694 455	−10 545	−197	0	+0.301 176	−4 573	− 85	+4
6	0.687 848	12 264	194	+4	0.683 910	10 739	194	0	0.296 603	4 657	84	+3
7	0.700 112	12 068	196	−2	0.673 171	10 930	191	+2	0.291 946	4 740	83	+3
8	0.712 180	11 867	201	+4	0.662 241	11 119	189	+1	0.287 206	4 821	81	+5
9	0.724 047	11 662	205	+5	0.651 122	11 304	185	+2	0.282 385	4 902	81	0
10	0.735 709	11 455	207	−2	0.639 818	11 488	184	−2	0.277 483	4 981	79	−1
11	−0.747 164	−11 243	+212	−2	+0.628 330	−11 667	−179	+5	+0.272 502	−5 060	− 79	−3
12	0.758 407	11 028	215	−4	0.616 663	11 844	177	+3	0.267 442	5 136	76	+4
13	0.769 435	10 809	219	−4	0.604 819	12 018	174	+1	0.262 306	5 211	75	+2
14	0.780 244	10 587	222	−5	0.592 801	12 188	170	0	0.257 095	5 286	75	−4
15	0.790 831	10 361	226	−2	0.580 613	12 355	167	−2	0.251 809	5 358	72	+1
16	0.801 192	10 130	231	+3	0.568 258	12 518	163	0	0.246 451	5 429	71	0
17	−0.811 322	− 9 898	+232	−5	+0.555 740	−12 677	−159	0	+0.241 022	−5 498	− 69	+2
18	0.821 220	9 662	236	−4	0.543 063	12 833	156	−4	0.235 524	5 566	68	+1
19	0.830 882	9 423	239	−4	0.530 230	12 984	151	+2	0.229 958	5 631	65	+4
20	0.840 305	9 182	241	−5	0.517 246	13 131	147	+4	0.224 327	5 696	65	0
21	0.849 487	8 937	245	0	0.504 115	13 274	143	+4	0.218 631	5 757	61	+5
22	0.858 424	8 691	246	−1	0.490 841	13 414	140	−1	0.212 874	5 818	61	0
23	−0.867 115	− 8 441	+250	+4	+0.477 427	−13 549	−135	+1	+0.207 056	−5 877	− 59	−2
24	0.875 556	8 190	251	−1	0.463 878	13 681	132	+1	0.201 179	5 934	57	0
25	0.883 746	7 937	253	−3	0.450 197	13 808	127	+4	0.195 245	5 989	55	+2
26	0.891 683	7 681	256	+1	0.436 389	13 932	124	0	0.189 256	6 043	54	−2
27	0.899 364	7 423	258	0	0.422 457	14 052	120	−1	0.183 213	6 095	52	0
28	0.906 787	7 164	259	−3	0.408 405	14 168	116	−1	0.177 118	6 145	50	+4
29	−0.913 951	− 6 902	+262	0	+0.394 237	−14 280	−112	−1	+0.170 973	−6 193	− 48	+4
30	0.920 853	6 638	264	+2	0.379 957	14 389	109	−4	0.164 780	6 240	47	0
31	0.927 491	6 373	265	0	0.365 568	14 493	104	+1	0.158 540	6 286	46	−3
Sept. 1	0.933 864	6 105	268	+1	0.351 075	14 594	101	−1	0.152 254	6 329	43	+3
2	0.939 969	− 5 836	269	−2	0.336 481	−14 690	96	+2	0.145 925	−6 371	42	+4
3	−0.945 805		+271	−4	+0.321 791		− 94	−4	+0.139 554		− 40	+5

Δ X, Δ Y, Δ Z sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit	Mittleres Äquinoktium 1947.0											
	X			*ΔX*	*Y*			*ΔY*	*Z*			*ΔZ*
1947												
Sept. 3	−0.945 805	− 5 565	+271	−4	+0.321 791	−14 784	− 94	−4	+0.139 554	−6 411	− 40	+5
4	0.951 370	5 292	273	−4	0.307 007	14 872	88	+2	0.133 143	6 449	38	+5
5	0.956 662	5 018	274	−5	0.292 135	14 958	86	−5	0.126 694	6 487	38	−2
6	0.961 680	4 741	277	+2	0.277 177	15 039	81	−3	0.120 207	6 521	34	+4
7	0.966 421	4 462	279	+4	0.262 138	15 116	77	−4	0.113 686	6 555	34	−2
8	0.970 883	4 182	280	+3	0.247 022	15 189	73	−5	0.107 131	6 587	32	−3
9	−0.975 065	− 3 899	+283	+5	+0.231 833	−15 258	− 69	−4	+0.100 544	−6 616	− 29	+2
10	0.978 964	3 616	283	−2	0.216 575	15 322	64	−2	0.093 928	6 645	29	−5
11	0.982 580	3 329	287	+4	0.201 253	15 382	60	−2	0.087 283	6 671	26	−3
12	0.985 909	3 043	286	−4	0.185 871	15 437	55	−1	0.080 612	6 695	24	+1
13	0.988 952	2 754	289	−1	0.170 434	15 488	51	−1	0.073 917	6 717	22	+3
14	0.991 706	2 464	290	−1	0.154 946	15 533	45	+5	0.067 200	6 737	20	+4
15	−0.994 170	− 2 173	+291	−1	+0.139 413	−15 573	− 40	+4	+0.060 463	−6 754	− 17	+5
16	0.996 343	1 881	292	−1	0.123 840	15 610	37	−3	0.053 709	6 770	16	0
17	0.998 224	1 589	292	−2	0.108 230	15 640	30	+2	0.046 939	6 784	14	−3
18	0.999 813	1 296	293	0	0.092 590	15 667	27	−3	0.040 155	6 795	11	0
19	1.001 109	1 002	294	+2	0.076 923	15 688	21	+1	0.033 360	6 805	10	−2
20	1.002 111	709	293	−4	0.061 235	15 704	16	+3	0.026 555	6 811	6	+3
21	−1.002 820	− 416	+293	−5	+0.045 531	−15 717	− 13	−2	+0.019 744	−6 817	− 6	−3
22	1.003 236	− 122	294	0	0.029 814	15 724	7	+4	0.012 927	6 820	3	+1
23	1.003 358	+ 172	294	+1	+0.014 090	15 726	− 2	+4	+0.006 107	6 821	− 1	+2
24	1.003 186	465	293	−3	−0.001 636	15 725	+ 1	−2	−0.000 714	6 820	+ 1	+1
25	1.002 721	759	294	+1	0.017 361	15 719	6	−1	0.007 534	6 817	3	+1
26	1.001 962	1 051	292	−3	0.033 080	15 708	11	+2	0.014 351	6 813	4	−1
27	−1.000 911	+ 1 345	+294	+4	−0.048 788	−15 693	+ 15	+2	−0.021 164	−6 806	+ 7	+3
28	0.999 566	1 637	292	+1	0.064 481	15 673	20	0	0.027 970	6 797	9	+3
29	0.997 929	1 930	293	+5	0.080 154	15 650	23	−5	0.034 767	6 787	10	+1
30	0.995 999	2 221	291	−1	0.095 804	15 622	28	+2	0.041 554	6 774	13	+1
Okt. 1	0.993 778	2 513	292	+1	0.111 426	15 589	33	+2	0.048 328	6 760	14	−1
2	0.991 265	2 804	291	−2	0.127 015	15 552	37	0	0.055 088	6 745	15	−5
3	−0.988 461	+ 3 094	+290	−3	−0.142 567	−15 512	+ 40	−4	−0.061 833	−6 726	+ 19	+2
4	0.985 367	3 385	291	+3	0.158 079	15 466	46	0	0.068 559	6 707	19	−2
5	0.981 982	3 675	290	+3	0.173 545	15 416	50	+1	0.075 266	6 685	22	0
6	0.978 307	3 964	289	+2	0.188 961	15 362	54	0	0.081 951	6 662	23	−1
7	0.974 343	4 254	290	+5	0.204 323	15 303	59	+1	0.088 613	6 636	26	+2
8	0.970 089	4 542	288	−1	0.219 626	15 239	64	+5	0.095 249	6 609	27	0
9	−0.965 547	+ 4 829	+287	−4	−0.234 865	−15 170	+ 69	+5	−0.101 858	−6 579	+ 30	+2
10	0.960 718	5 116	287	+1	0.250 035	15 097	73	0	0.108 437	6 548	31	+1
11	0.955 602	5 402	286	+3	0.265 132	15 019	78	−3	0.114 985	6 513	35	+4
12	0.950 200	5 687	285	+3	0.280 151	14 936	83	−3	0.121 498	6 478	35	−4
13	0.944 513	+ 5 969	282	−3	0.295 087	−14 848	88	−2	0.127 976	−6 440	38	−4
14	−0.938 544		+282	+4	−0.309 935		+ 93	−3	−0.134 416		+ 40	−3

ΔX, *ΔY*, *ΔZ* sind in Einheiten der 7. Dezimale gegeben.

0^h Weltzeit	Mittleres Äquinoktium 1947.0											
	X			ΔX	Y			ΔY	Z			ΔZ
1947												
Okt. 14	−0.938 544	+ 6 251	+282	+4	−0.309 935	−14 755	+ 93	−3	−0.134 416	−6 400	+ 40	−3
15	0.932 293	6 531	280	+4	0.324 690	14 658	97	−4	0.140 816	6 358	42	−1
16	0.925 762	6 809	278	+2	0.339 348	14 555	103	+2	0.147 174	6 313	45	+4
17	0.918 953	7 084	275	−4	0.353 903	14 448	107	+3	0.153 487	6 266	47	+3
18	0.911 869	7 357	273	−2	0.368 351	14 336	112	+4	0.159 753	6 219	47	−3
19	0.904 512	7 629	272	+2	0.382 687	14 221	115	−2	0.165 972	6 168	51	+3
20	−0.896 883	+ 7 897	+268	−4	−0.396 908	−14 100	+121	+4	−0.172 140	−6 115	+ 53	+5
21	0.888 986	8 163	266	−4	0.411 008	13 975	125	+2	0.178 255	6 062	53	−1
22	0.880 823	8 427	264	0	0.424 983	13 847	128	−4	0.184 317	6 005	57	+4
23	0.872 396	8 688	261	0	0.438 830	13 714	133	−5	0.190 322	5 948	57	−1
24	0.863 708	8 947	259	+3	0'452 544	13 578	136	−5	0.196 270	5 888	60	0
25	0.854 761	9 203	256	+3	0.466 122	13 436	142	+3	0.202 158	5 827	61	−3
26	−0.845 558	+ 9 456	+253	0	−0.479 558	−13 292	+144	−1	−0.207 985	−5 764	+ 63	−3
27	0.836 102	9 706	250	−2	0.492 850	13 143	149	+4	0.213 749	5 700	64	−3
28	0.826 396	9 955	249	+2	0.505 993	12 990	153	+3	0.219 449	5 633	67	+1
29	0.816 441	10 199	244	−5	0.518 983	12 835	155	−3	0.225 082	5 566	67	−2
30	0.806 242	10 441	242	−3	0.531 818	12 675	160	+1	0.230 648	5 496	70	+2
31	0.795 801	10 681	240	+1	0.544 493	12 511	164	+2	0.236 144	5 425	71	0
Nov. 1	−0.785 120	+10 918	+237	+2	−0.557 004	−12 345	+166	−2	−0.241 569	−5 353	+ 72	−4
2	0.774 202	11 152	234	+2	0.569 349	12 173	172	+4	0.246 922	5 279	74	−4
3	0.763 050	11 384	232	+5	0.581 522	11 999	174	+1	0.252 201	5 203	76	−1
4	0.751 666	11 612	228	+1	0.593 521	11 820	179	+4	0.257 404	5 126	77	−4
5	0.740 054	11 838	226	+3	0.605 341	11 638	182	+1	0.262 530	5 047	79	−3
6	0.728 216	12 060	222	+2	0.616 979	11 451	187	+5	0.267 577	4 967	80	−4
7	−0.716 156	+12 280	+220	+5	−0.628 430	−11 261	+190	+2	−0.272 544	−4 884	+ 83	+3
8	0.703 876	12 496	216	+1	0.639 691	11 066	195	+5	0.277 428	4 799	85	+5
9	0.691 380	12 707	211	−3	0.650 757	10 869	197	−2	0.282 227	4 714	85	−4
10	0.678 673	12 916	209	+3	0.661 626	10 666	203	+2	0.286 941	4 627	87	−5
11	0.665 757	13 121	205	+4	0.672 292	10 461	205	−3	0.291 568	4 537	90	0
12	0.652 636	13 321	200	+1	0.682 753	10 252	209	−4	0.296 105	4 447	90	−5
13	−0.639 315	+13 517	+196	0	−0.693 005	−10 039	+213	0	−0.300 552	−4 355	+ 92	−3
14	0.625 798	13 709	192	+3	0.703 044	9 823	216	+1	0.304 907	4 260	95	+3
15	0.612 089	13 897	188	+4	0.712 867	9 603	220	+2	0.309 167	4 166	94	−4
16	0.598 192	14 080	183	0	0.722 470	9 381	222	−3	0.313 333	4 069	97	−1
17	0.584 112	14 258	178	−3	0.731 851	9 156	225	−3	0.317 402	3 971	98	0
18	0.569 854	14 432	174	−3	0.741 007	8 928	228	+1	0.321 373	3 872	99	−1
19	−0.555 422	+14 602	+170	−1	−0.749 935	− 8 696	+232	+4	−0.325 245	−3 772	+100	−3
20	0.540 820	14 766	164	−5	0.758 631	8 463	233	−2	0.329 017	3 670	102	0
21	0.526 054	14 926	160	−1	0.767 094	8 227	236	−2	0.332 687	3 568	102	−2
22	0.511 128	15 083	157	+4	0.775 321	7 988	239	+1	0.336 255	3 464	104	+1
23	0.496 045	+15 233	150	−4	0.783 309	− 7 748	240	−2	0.339 719	−3 360	104	−1
24	−0.480 812		+146	−3	−0.791 057		+244	+3	−0.343 079		+106	+4

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit	Mittleres Äquinoktium 1947.0											
	X			ΔX	Y			ΔY	Z			ΔZ
1947												
Nov. 24	−0.480 812	+15 379	+146	−3	−0.791 057	−7 504	+244	+3	−0.343 079	−3 254	+106	+4
25	0.465 433	15 521	142	0	0.798 561	7 259	245	−1	0.346 333	3 147	107	+3
26	0.449 912	15 658	137	−1	0.805 820	7 012	247	−2	0.349 480	3 041	106	−2
27	0.434 254	15 791	133	0	0.812 832	6 763	249	−2	0.352 521	2 932	109	+5
28	0.418 463	15 918	127	−4	0.819 595	6 511	252	+1	0.355 453	2 823	109	+3
29	0.402 545	16 043	125	+4	0.826 106	6 259	252	−3	0.358 276	2 714	109	+1
30	−0.386 502	+16 161	+118	−2	−0.832 365	−6 003	+256	+3	−0.360 990	−2 602	+112	+5
Dez. 1	0.370 341	16 277	116	+4	0.838 368	5 746	257	+2	0.363 592	2 492	110	−4
2	0.354 064	16 386	109	−3	0.844 114	5 486	260	+3	0.366 084	2 379	113	−1
3	0.337 678	16 492	106	+4	0.849 600	5 226	260	−4	0.368 463	2 266	113	−3
4	0.321 186	16 593	101	+5	0.854 826	4 962	264	+3	0.370 729	2 152	114	−3
5	0.304 593	16 689	96	+3	0.859 788	4 696	266	+5	0.372 881	2 037	115	−2
6	−0.287 904	+16 779	+ 90	−1	−0.864 484	−4 429	+267	0	−0.374 918	−1 922	+115	−4
7	0.271 125	16 865	86	+4	0.868 913	4 160	269	−1	0.376 840	1 804	118	+3
8	0.254 260	16 946	81	+5	0.873 073	3 889	271	−1	0.378 644	1 688	116	−2
9	0.237 314	17 020	74	−2	0.876 962	3 617	272	−2	0.380 332	1 569	119	+5
10	0.220 294	17 089	69	−1	0.880 579	3 343	274	+3	0.381 901	1 450	119	+3
11	0.203 205	17 153	64	+3	0.883 922	3 067	276	+5	0.383 351	1 331	119	0
12	−0.186 052	+17 212	+ 59	+5	−0.886 989	−2 791	+276	+1	−0.384 682	−1 211	+120	−1
13	0.168 840	17 264	52	−1	0.889 780	2 514	277	+1	0.385 893	1 091	120	−1
14	0.151 576	17 310	46	−3	0.892 294	2 235	279	+3	0.386 984	970	121	+4
15	0.134 266	17 352	42	+3	0.894 529	1 957	278	−2	0.387 954	849	121	+4
16	0.116 914	17 387	35	+2	0.896 486	1 677	280	+1	0.388 803	727	122	+5
17	0.099 527	17 418	31	+5	0.898 163	1 398	279	−3	0.389 530	606	121	−2
18	−0.082 109	+17 441	+ 23	−4	−0.899 561	−1 117	+281	+2	−0.390 136	−485	+121	−3
19	0.064 668	17 461	20	+2	0.900 678	837	280	−1	0.390 621	362	123	+3
20	0.047 207	17 473	12	−4	0.901 515	557	280	−1	0.390 983	241	121	−4
21	0.029 734	17 481	8	0	0.902 072	−276	281	+1	0.391 224	−120	121	−5
22	−0.012 253	17 484	+ 3	+1	0.902 348	+4	280	−1	0.391 344	+3	123	+3
23	+0.005 231	17 480	− 4	−4	0.902 344	284	280	−2	0.391 341	123	120	−4
24	+0.022 711	+17 472	− 8	−2	−0.902 060	+563	+279	−4	−0.391 218	+245	+122	+4
25	0.040 183	17 458	14	−3	0.901 497	842	279	+1	0.390 973	367	122	+5
26	0.057 641	17 440	18	+2	0.900 655	1 122	280	+5	0.390 606	487	120	−4
27	0.075 081	17 416	24	−1	0.899 533	1 399	277	−3	0.390 119	607	120	−5
28	0.092 497	17 388	28	+1	0.898 134	1 678	279	+1	0.389 512	728	121	0
29	0.109 885	17 354	34	−3	0.896 456	1 954	276	−4	0.388 784	848	120	0
30	+0.127 239	+17 316	− 38	0	−0.894 502	+2 232	+278	+4	−0.387 936	+968	+120	+1
31	0.144 555	+17 272	44	−2	0.892 270	+2 509	277	+5	0.386 968	+1 088	120	+3
32	+0.161 827		− 49	−1	−0.889 761		+277	+4	−0.385 880		+120	+3

ΔX, ΔY, ΔY sind in Einheiten der 7. Dezimale gegeben.

Frühlingsäquinoktium	21. März	11h 13m	Herbstäquinoktium	23. Sept.	21h 29m
Sommersolstitium	22. Juni	6 19	Wintersolstitium	22. Dez.	16 43

Erdnähe 4. Jan. 3h
Erdferne 5. Juli 10

Tag		0h Weltzeit			
		Aberration	Parallaxe	Mittlere Länge $L\odot$	Mittlere Anomalie $M\odot$
1947		"	"	°	°
Jan.	−1	20.82	8.95	277.8404	355.81
	+9	20.82	8.95	287.6969	5.67
	19	20.80	8.94	297.5534	15.52
	29	20.78	8.93	307.4099	25.38
Febr.	8	20.75	8.92	317.2663	35.24
	18	20.71	8.90	327.1228	45.09
	28	20.66	8.88	336.9793	54.95
März	10	20.61	8.86	346.8357	64.80
	20	20.55	8.84	356.6922	74.66
	30	20.50	8.81	6.5487	84.52
April	9	20.44	8.79	16.4052	94.37
	19	20.38	8.76	26.2616	104.23
	29	20.33	8.74	36.1181	114.08
Mai	9	20.28	8.72	45.9746	123.94
	19	20.23	8.70	55.8311	133.80
	29	20.20	8.68	65.6875	143.65
Juni	8	20.17	8.67	75.5440	153.51
	18	20.15	8.66	85.4005	163.36
	28	20.14	8.66	95.2570	173.22
Juli	8	20.13	8.66	105.1134	183.08
	18	20.14	8.66	114.9699	192.93
	28	20.16	8.67	124.8264	202.79
Aug.	7	20.18	8.68	134.6828	212.64
	17	20.22	8.69	144.5393	222.50
	27	20.26	8.71	154.3958	232.36
Sept.	6	20.31	8.73	164.2523	242.21
	16	20.36	8.75	174.1087	252.07
	26	20.42	8.78	183.9652	261.92
Okt.	6	20.48	8.80	193.8217	271.78
	16	20.53	8.83	203.6782	281.64
	26	20.59	8.85	213.5346	291.49
Nov.	5	20.65	8.88	223.3911	301.35
	15	20.69	8.90	233.2476	311.20
	25	20.74	8.92	243.1041	321.06
Dez.	5	20.77	8.93	252.9605	330.92
	15	20.80	8.94	262.8170	340.77
	25	20.81	8.95	272.6735	350.63
	35	20.82	8.95	282.5299	0.48

Tag		Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite	Alter
		0h Weltzeit										
1947		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°	d
Jan.	0	0 16 44	47 49	− 3 31.0	5 42.2	56 57.3	50.4	15 32.6	13.7	2.439	−4.890	7.5
	1	1 4 33	49 41	+ 2 11.2	5 46.6	57 47.7	53.4	15 46.3	14.6	15.710	−4.330	8.5
	2	1 54 14	52 43	+ 7 57.8	5 33.7	58 41.1	52.8	16 0.9	14.4	29.366	−3.512	9.5
	3	2 46 57	56 46	+13 31.5	4 58.6	59 33.9	47.4	16 15.3	12.9	43.432	−2.462	10.5
	4	3 43 43	61 19	+18 30.1	3 56.6	60 21.3	36.6	16 28.2	10.0	57.900	−1.229	11.5
	5	4 45 2	65 19	+22 26.7	2 27.3	60 57.9	20.6	16 38.2	5.6	72.724	+0.115	12.5
	6	5 50 21	67 25	+24 54.0	0 37.7	61 18.5	1.3	16 43.8	0.3	87.810	+1.471	13.5
	7	6 57 46	66 44	+25 31.7	1 16.9	61 19.8	18.7	16 44.1	5.1	103.019	+2.732	14.5
	8	8 4 30	63 33	+24 14.8	2 59.1	61 1.1	36.5	16 39.0	9.9	118.188	+3.794	15.5
	9	9 8 3	58 59	+21 15.7	4 16.6	60 24.6	49.5	16 29.1	13.5	133.149	+4.580	16.5
	10	10 7 2	54 22	+16 59.1	5 6.5	59 35.1	57.0	16 15.6	15.5	147.761	+5.045	17.5
	11	11 1 24	50 28	+11 52.6	5 31.6	58 38.1	58.8	16 0.1	16.0	161.927	+5.183	18.5
	12	11 51 52	47 42	+ 6 21.0	5 37.5	57 39.3	55.9	15 44.1	15.3	175.606	+5.017	19.5
	13	12 39 34	46 4	+ 0 43.5	5 28.8	56 43.4	49.5	15 28.8	13.5	188.804	+4.587	20.5
	14	13 25 38	45 31	− 4 45.3	5 8.9	55 53.9	41.2	15 15.3	11.2	201.567	+3.940	21.5
	15	14 11 9	45 54	− 9 54.2	4 39.6	55 12.7	31.9	15 4.1	8.7	213.966	+3.123	22.5
	16	14 57 3	47 2	−14 33.8	4 1.4	54 40.8	22.4	14 55.4	6.1	226.082	+2.184	23.5
	17	15 44 5	48 37	−18 35.2	3 14.2	54 18.4	13.3	14 49.3	3.6	238.003	+1.164	24.5
	18	16 32 42	50 21	−21 49.4	2 18.3	54 5.1	5.2	14 45.7	1.4	249.808	+0.106	25.5
	19	17 23 3	51 49	−24 7.7	1 14.5	53 59.9	1.9	14 44.3	0.5	261.573	−0.951	26.5
	20	18 14 52	52 38	−25 22.2	0 5.3	54 1.8	8.0	14 44.8	2.2	273.359	−1.966	27.5
	21	19 7 30	52 37	−25 27.5	1 5.4	54 9.8	13.0	14 47.0	3.5	285.215	−2.899	28.5
	22	20 0 7	51 45	−24 22.1	2 13.6	54 22.8	17.4	14 50.5	4.7	297.181	−3.711	29.5
	23	20 51 52	50 21	−22 8.5	3 15.2	54 40.2	21.0	14 55.2	4.8	309.283	−4.363	0.6
	24	21 42 13	48 48	−18 53.3	4 7.2	55 1.2	24.7	15 0.0	7.7	321.539	−4.822	1.6
	25	22 31 1	47 31	−14 46.1	4 48.5	55 25.9	28.3	15 7.7	7.7	333.963	−5.060	2.6
	26	23 18 32	46 49	− 9 57.6	5 18.2	55 54.2	32.0	15 15.4	8.7	346.567	−5.058	3.6
	27	0 5 21	46 56	− 4 39.4	5 35.6	56 26.2	35.6	15 24.1	9.7	359.369	−4.804	4.6
	28	0 52 17	48 3	+ 0 56.2	5 40.2	57 1.8	39.0	15 33.8	10.7	12.389	−4.299	5.6
	29	1 40 20	50 16	+ 6 36.4	5 29.5	57 40.8	41.1	15 44.5	11.2	25.655	−3.556	6.6
	30	2 30 36	53 31	+12 5.9	5 0.9	58 21.9	41.4	15 55.7	11.2	39.196	−2.600	7.6
	31	3 24 7	57 34	+17 6.8	4 10.7	59 3.3	38.7	16 6.9	10.6	53.039	−1.472	8.6
Febr.	1	4 21 41	61 43	+21 17.5	2 56.5	59 42.0	32.2	16 17.5	8.8	67.198	−0.230	9.6
	2	5 23 24	64 53	+24 14.0	1 20.3	60 14.2	21.7	16 26.3	5.9	81.661	+1.050	10.6
	3	6 28 17	66 0	+25 34.3	0 28.8	60 35.9	7.5	16 32.2	2.0	96.381	+2.281	11.6
	4	7 34 17	64 37	+25 5.5	2 16.4	60 43.4	8.7	16 34.2	2.4	111.271	+3.369	12.6
	5	8 38 54	61 16	+22 49.1	3 47.6	60 34.7	25.0	16 31.8	6.8	126.205	+4.227	13.6
	6	9 40 10	57 8	+19 1.5	4 53.6	60 9.7	38.9	16 25.0	10.6	141.034	+4.792	14.6
	7	10 37 18	53 10	+14 7.9	5 32.9	59 30.8	48.7	16 14.4	13.2	155.615	+5.034	15.6
	8	11 30 28	50 1	+ 8 35.0	5 48.3	58 42.1	53.7	16 1.2	14.7	169.826	+4.954	16.6
	9	12 20 29	47 54	+ 2 46.7	5 44.7	57 48.4	53.9	15 46.5	14.6	183.595	+4.586	17.6
	10	13 8 23		2 58.0		56 54.5		15 31.9		196.897	+3.977	18.6

Tag	Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1947	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Jan. 0	0 52 57	124	+ 0 48.2	+14.8	57.6	18 14.7	1.90	12 7	0.7	— —	—
1	1 43 43	130	+ 6 46.4	+14.9	58.5	19 1.4	2.00	12 25	0.7	0 37	3.2
2	2 37 34	140	+12 35.7	+14.1	59.4	19 51.2	2.16	12 44	0.9	1 55	3.3
3	3 35 46	152	+17 52.7	+12.1	60.3	20 45.3	2.36	13 7	1.1	3 16	3.5
4	4 39 4	165	+22 7.8	+ 8.9	60.9	21 44.4	2.57	13 37	1.5	4 41	3.6
5	5 47 1	174	+24 49.1	+ 4.4	61.3	22 48.3	2.73	14 18	2.0	6 7	3.4
6	6 57 31	177	+25 31.8	− 0.9	61.3	23 54.7	2.77	15 15	2.7	7 26	3.1
7	— — —	—	— —	—	—	— —	—	16 26	3.2	8 33	2.4
8	8 7 15	171	+24 9.2	− 5.9	61.0	1 0.3	2.67	17 48	3.5	9 24	1.8
9	9 13 14	159	+20 56.5	− 9.9	60.3	2 2.2	2.48	19 12	3.5	10 0	1.3
10	10 14 2	145	+16 23.2	−12.6	59.5	2 58.9	2.25	20 35	3.4	10 28	1.0
11	11 9 43	134	+11 0.7	−14.1	58.5	3 50.4	2.06	21 53	3.2	10 49	0.8
12	12 1 16	125	+ 5 15.8	−14.5	57.5	4 37.9	1.91	23 8	3.0	11 7	0.7
13	12 50 0	119	− 0 31.3	−14.3	56.5	5 22.6	1.83	— —	—	11 23	0.7
14	13 37 13	117	− 6 6.0	−13.5	55.7	6 5.7	1.78	0 20	3.0	11 40	0.7
15	14 24 6	118	−11 16.9	−12.3	55.0	6 48.6	1.80	1 30	2.9	11 57	0.8
16	15 11 40	120	−15 54.1	−10.7	54.5	7 32.1	1.84	2 39	2.9	12 16	0.9
17	16 0 40	125	−19 48.0	− 8.6	54.2	8 17.0	1.91	3 47	2.8	12 39	1.1
18	16 51 30	130	−22 48.6	− 6.3	54.0	9 3.8	1.99	4 54	2.7	13 8	1.4
19	17 44 13	134	−24 46.4	− 3.5	54.0	9 52.4	2.06	5 58	2.5	13 44	1.7
20	18 38 18	136	−25 33.3	− 0.4	54.1	10 42.4	2.10	6 54	2.2	14 30	2.1
21	19 32 53	136	−25 4.8	+ 2.8	54.3	11 32.9	2.10	7 43	1.8	15 26	2.5
22	20 26 58	134	−23 21.3	+ 5.8	54.5	12 22.9	2.06	8 22	1.5	16 29	2.7
23	21 19 44	130	−20 28.3	+ 8.5	54.9	13 11.6	1.99	8 53	1.2	17 37	2.9
24	22 10 49	126	−16 35.0	+10.8	55.3	13 58.6	1.93	9 18	1.0	18 48	3.0
25	23 0 19	122	−11 53.1	+12.6	55.7	14 44.1	1.87	9 39	0.8	20 1	3.0
26	23 48 45	120	− 6 35.1	+13.8	56.2	15 28.4	1.84	9 57	0.7	21 13	3.0
27	0 36 58	121	− 0 53.9	+14.5	56.8	16 12.6	1.85	10 14	0.7	22 26	3.1
28	1 26 3	125	+ 4 57.0	+14.6	57.5	16 57.6	1.91	10 30	0.7	23 41	3.2
29	2 17 13	132	+10 42.0	+14.0	58.2	17 44.7	2.03	10 48	0.8	— —	—
30	3 11 43	141	+16 2.5	+12.5	58.9	18 35.1	2.19	11 9	1.0	0 58	3.3
31	4 10 34	153	+20 35.4	+10.0	59.6	19 29.9	2.38	11 35	1.3	2 19	3.4
Febr. 1	5 14 8	164	+23 53.7	+ 6.3	60.2	20 29.3	2.57	12 9	1.7	3 41	3.4
2	6 21 33	172	+25 31.0	+ 1.7	60.6	21 32.6	2.69	12 56	2.3	5 2	3.2
3	7 30 31	172	+25 10.1	− 3.4	60.7	22 37.5	2.68	13 58	2.9	6 13	2.7
4	8 38 3	165	+22 51.6	− 8.0	60.6	23 40.9	2.58	15 15	3.3	7 10	2.1
5	— — —	—	— —	—	—	— —	—	16 39	3.5	7 53	1.6
6	9 41 50	154	+18 54.0	−11.6	60.1	0 40.6	2.39	18 4	3.5	8 25	1.2
7	10 40 56	142	+13 46.7	−13.8	59.5	1 35.6	2.20	19 27	3.4	8 49	0.9
8	11 35 40	132	+ 8 0.0	−14.9	58.6	2 26.2	2.03	20 45	3.2	9 9	0.8
9	12 27 1	125	+ 1 59.8	−15.0	57.7	3 13.5	1.92	22 1	3.1	9 27	0.7
10	13 16 12	121	− 3 53.7	−14.4	56.8	3 58.6	1.85	23 13	3.0	9 43	0.7

Tag		0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite	Alter
1947		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°	d
Febr.	10	13 8 23	46 51	− 2 58.0	5 26.6	56 54.5	49.8	15 31.9	13.6	196.897	+3.977	18.6
	11	13 55 14	46 43	− 8 24.6	4 57.1	56 4.7	42.8	15 18.3	11.7	209.754	+3.182	19.6
	12	14 41 57	47 23	−13 21.7	4 18.1	55 21.9	33.8	15 6.6	9.2	222.222	+2.255	20.6
	13	15 29 20	48 36	−17 39.8	3 30.5	54 48.1	23.7	14 57.4	6.5	234.379	+1.247	21.6
	14	16 17 56	50 7	−21 10.3	2 34.9	54 24.4	13.5	14 50.9	3.6	246.317	+0.202	22.6
	15	17 8 3	51 31	−23 45.2	1 32.2	54 10.9	3.6	14 47.3	1.0	258.128	−0.841	23.6
	16	17 59 34	52 29	−25 17.4	0 23.7	54 7.3	5.4	14 46.3	1.5	269.903	−1.842	24.6
	17	18 52 3	52 44	−25 41.1	0 47.3	54 12.7	13.2	14 47.8	3.6	281.722	−2.766	25.6
	18	19 44 47	52 12	−24 53.8	1 57.4	54 25.9	19.3	14 51.4	5.2	293.652	−3.575	26.6
	19	20 36 59	51 5	−22 56.4	3 2.4	54 45.2	24.0	14 56.6	5.6	305.747	−4.233	27.6
	20	21 28 4	49 41	−19 54.0	3 59.1	55 9.2	27.1	15 2.2	8.3	318.040	−4.704	28.6
	21	22 17 45	48 23	−15 54.9	4 45.2	55 36.3	28.7	15 10.5	7.9	330.550	−4.959	29.6
	22	23 6 8	47 31	−11 9.7	5 18.8	56 5.0	29.4	15 18.4	8.0	343.277	−4.973	0.9
	23	23 53 39	47 21	− 5 50.9	5 39.1	56 34.4	29.2	15 26.4	7.9	356.213	−4.733	1.9
	24	0 41 0	48 2	− 0 11.8	5 44.9	57 3.6	28.7	15 34.3	7.9	9.342	−4.241	2.9
	25	1 29 2	49 41	+ 5 33.1	5 34.9	57 32.3	28.0	15 42.2	7.6	22.649	−3.512	3.9
	26	2 18 43	52 15	+11 8.0	5 7.5	58 0.3	26.9	15 49.8	7.3	36.128	−2.578	4.9
	27	3 10 58	55 36	+16 15.5	4 20.4	58 27.2	25.3	15 57.1	6.9	49.776	−1.483	5.9
	28	4 6 34	59 11	+20 35.9	3 12.6	58 52.5	22.7	16 4.0	6.2	63.601	−0.287	6.9
März	1	5 5 45	62 13	+23 48.5	1 45.3	59 15.2	18.3	16 10.2	5.0	77.608	+0.942	7.9
	2	6 7 58	63 47	+25 33.8	0 4.6	59 33.5	11.9	16 15.2	3.2	91.796	+2.128	8.9
	3	7 11 45	63 20	+25 38.4	1 39.1	59 45.4	3.3	16 18.4	0.9	106.144	+3.192	9.9
	4	8 15 5	61 3	+23 59.3	3 13.3	59 48.7	7.2	16 19.3	1.9	120.605	+4.059	10.9
	5	9 16 8	57 43	+20 46.0	4 28.7	59 41.5	18.3	16 17.4	5.0	135.103	+4.666	11.9
	6	10 13 51	54 13	+16 17.3	5 20.2	59 23.2	29.0	16 12.4	7.9	149.538	+4.972	12.9
	7	11 8 4	51 15	+10 57.1	5 48.2	58 54.2	37.7	16 4.5	10.3	163.801	+4.964	13.9
	8	11 59 19	49 6	+ 5 8.9	5 54.7	58 16.5	43.4	15 54.2	11.8	177.790	+4.655	14.9
	9	12 48 25	47 54	− 0 45.8	5 43.5	57 33.1	45.5	15 42.4	12.4	191.430	+4.084	15.9
	10	13 36 19	47 34	− 6 29.3	5 17.8	56 47.6	44.0	15 30.0	12.0	204.679	+3.304	16.9
	11	14 23 53	47 59	−11 47.1	4 40.2	56 3.6	39.3	15 18.0	10.7	217.537	+2.374	17.9
	12	15 11 52	48 59	−16 27.3	3 52.7	55 24.3	32.0	15 7.3	8.7	230.037	+1.351	18.9
	13	16 0 51	50 16	−20 20.0	2 56.8	54 52.3	22.9	14 58.6	6.3	242.237	+0.287	19.9
	14	16 51 7	51 29	−23 16.8	1 53.6	54 29.4	12.8	14 52.3	3.5	254.216	−0.771	20.9
	15	17 42 36	52 24	−25 10.4	0 45.3	54 16.6	2.3	14 48.8	0.6	266.064	−1.786	21.9
	16	18 35 0	52 40	−25 55.7	0 25.8	54 14.3	8.0	14 48.2	2.2	277.871	−2.720	22.9
	17	19 27 40	52 17	−25 29.9	1 36.5	54 22.3	17.3	14 50.4	4.7	289.727	−3.540	23.9
	18	20 19 57	51 20	−23 53.4	2 43.7	54 39.6	25.3	14 55.1	6.9	301.715	−4.213	24.9
	19	21 11 17	50 8	−21 9.7	3 44.2	55 4.9	31.4	15 2.0	8.5	313.903	−4.706	25.9
	20	22 1 25	48 58	−17 25.5	4 35.6	55 36.3	35.2	15 10.5	9.6	326.342	−4.988	26.9
	21	22 50 23	48 10	−12 49.9	5 15.7	56 11.5	36.5	15 20.1	10.0	339.063	−5.031	27.9
	22	23 38 33	48 0	− 7 34.2	5 42.7	56 48.0	35.4	15 30.1	9.6	352.073	−4.818	28.9
	23	0 26 33		− 1 51.5		57 23.4		15 39.7		5.356	−4.342	0.3

Tag	Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1947	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Febr. 10	13 16 12	121	− 3 53.7	−14.4	56.8	3 58.6	1.85	23 13	3.0	9 43	0.7
11	14 4 23	120	− 9 25.6	−13.2	55.9	4 42.8	1.84	— —	—	10 0	0.7
12	14 52 37	121	−14 24.0	−11.6	55.2	5 26.9	1.85	0 25	2.9	10 19	0.8
13	15 41 45	124	−18 39.0	− 9.6	54.7	6 12.0	1.91	1 35	2.9	10 41	1.0
14	16 32 21	129	−22 1.4	− 7.2	54.3	6 58.5	1.98	2 43	2.8	11 7	1.3
15	17 24 36	133	−24 22.3	− 4.5	54.1	7 46.7	2.04	3 48	2.6	11 41	1.6
16	18 18 19	136	−25 33.9	− 1.5	54.1	8 36.3	2.09	4 48	2.3	12 24	2.0
17	19 12 49	137	−25 31.0	+ 1.8	54.3	9 26.8	2.10	5 39	2.0	13 16	2.4
18	20 7 15	135	−24 11.8	+ 4.9	54.6	10 17.1	2.08	6 22	1.6	14 17	2.7
19	21 0 48	132	−21 39.6	+ 7.8	54.9	11 6.6	2.03	6 55	1.3	15 25	2.9
20	21 52 54	128	−18 1.8	+10.3	55.4	11 54.6	1.97	7 22	1.0	16 36	3.0
21	22 43 27	125	−13 29.1	+12.3	55.9	12 41.1	1.91	7 44	0.8	17 49	3.0
22	23 32 48	122	− 8 14.5	+13.8	56.4	13 26.4	1.87	8 3	0.7	19 2	3.1
23	0 21 36	122	− 2 32.0	+14.6	56.9	14 11.1	1.86	8 20	0.7	20 16	3.1
24	1 10 45	124	+ 3 23.1	+14.9	57.4	14 56.2	1.90	8 36	0.7	21 31	3.2
25	2 1 18	129	+ 9 14.5	+14.3	57.8	15 42.7	1.98	8 54	0.8	22 48	3.3
26	2 54 22	137	+14 43.8	+13.0	58.3	16 31.7	2.11	9 13	0.9	— —	—
27	3 50 56	146	+19 30.2	+10.7	58.8	17 24.1	2.27	9 36	1.1	0 8	3.3
28	4 51 29	156	+23 10.3	+ 7.5	59.2	18 20.6	2.43	10 7	1.5	1 29	3.3
März 1	5 55 43	164	+25 20.9	+ 3.3	59.5	19 20.7	2.56	10 48	2.0	2 48	3.2
2	7 2 6	167	+25 44.4	− 1.6	59.7	20 23.0	2.60	11 42	2.6	4 0	2.8
3	8 8 21	163	+24 14.8	− 6.0	59.8	21 25.1	2.55	12 51	3.1	5 1	2.3
4	9 12 12	155	+21 1.3	−10.0	59.7	22 24.9	2.42	14 11	3.4	5 48	1.7
5	10 12 19	145	+16 25.4	−12.8	59.4	23 20.9	2.25	15 34	3.5	6 23	1.3
6	— — —	—	— —	—	—	— —	—	16 58	3.4	6 50	1.0
7	11 8 33	136	+10 54.0	−14.6	58.9	0 13.0	2.10	18 18	3.3	7 11	0.8
8	12 1 28	129	+ 4 53.7	−15.3	58.2	1 1.9	1.98	19 36	3.2	7 29	0.7
9	12 52 3	124	− 1 12.2	−15.1	57.5	1 48.4	1.90	20 52	3.1	7 46	0.7
10	13 41 23	123	− 7 4.6	−14.2	56.7	2 33.6	1.88	22 5	3.0	8 3	0.7
11	14 30 27	123	−12 28.2	−12.7	56.0	3 18.7	1.88	23 18	3.0	8 21	0.8
12	15 20 6	125	−17 10.4	−10.7	55.3	4 4.2	1.92	— —	—	8 41	0.9
13	16 10 54	129	−21 0.5	− 8.4	54.8	4 51.0	1.98	0 29	2.9	9 6	1.2
14	17 3 8	132	−23 49.5	− 5.7	54.4	5 39.1	2.03	1 37	2.7	9 37	1.5
15	17 56 41	135	−25 29.5	− 2.7	54.2	6 28.6	2.08	2 39	2.4	10 16	1.8
16	18 51 3	136	−25 55.4	+ 0.5	54.3	7 18.9	2.10	3 34	2.1	11 4	2.2
17	19 45 30	136	−25 4.9	+ 3.7	54.5	8 9.2	2.09	4 19	1.7	12 2	2.6
18	20 39 18	133	−22 59.7	+ 6.7	54.8	8 59.0	2.05	4 56	1.4	13 8	2.8
19	21 31 54	130	−19 45.1	+ 9.4	55.3	9 47.5	1.99	5 25	1.1	14 18	3.0
20	22 23 7	126	−15 29.8	+11.8	55.9	10 34.7	1.94	5 49	0.9	15 31	3.1
21	23 13 13	124	−10 24.9	+13.6	56.5	11 20.7	1.90	6 8	0.8	16 45	3.1
22	0 2 43	124	− 4 43.8	+14.8	57.1	12 6.1	1.90	6 26	0.7	18 0	3.2
23	0 52 28	125	+ 1 18.1	+15.3	57.7	12 51.8	1.92	6 42	0.7	19 17	3.2

Tag		0h Weltzeit: Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite	Alter
1947		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°	d
März	23	0 26 33	48 37	− 1 51.5	5 54.6	57 23.4	32.1	15 39.7	8.8	5.356	−4.342	0.3
	24	1 15 10	50 8	+ 4 3.1	5 49.2	57 55.5	27.2	15 48.5	7.4	18.878	−3.614	1.3
	25	2 5 18	52 30	+ 9 52.3	5 24.4	58 22.7	21.5	15 55.9	5.8	32.595	−2.667	2.3
	26	2 57 48	55 34	+15 16.7	4 38.8	58 44.2	15.6	16 1.7	4.3	46.460	−1.550	3.3
	27	3 53 22	58 47	+19 55.5	3 31.9	58 59.8	10.0	16 6.0	2.7	60.431	−0.330	4.3
	28	4 52 9	61 31	+23 27.4	2 6.1	59 9.8	4.8	16 8.7	1.3	74.476	+0.919	5.3
	29	5 53 40	62 53	+25 33.5	0 27.5	59 14.6	0.1	16 10.0	0.0	88.571	+2.118	6.3
	30	6 56 33	62 24	+26 1.0	1 13.8	59 14.7	4.5	16 10.0	1.2	102.699	+3.191	7.3
	31	7 58 57	60 16	+24 47.2	2 47.2	59 10.2	9.4	16 8.8	2.5	116.839	+4.069	8.3
April	1	8 59 13	57 9	+22 0.0	4 4.5	59 0.8	14.6	16 6.3	4.0	130.965	+4.699	9.3
	2	9 56 22	53 52	+17 55.5	5 1.3	58 46.2	20.1	16 2.3	5.5	145.037	+5.043	10.3
	3	10 50 14	51 2	+12 54.2	5 37.0	58 26.1	25.7	15 56.8	7.0	159.004	+5.084	11.3
	4	11 41 16	49 0	+ 7 17.2	5 52.5	58 0.4	30.6	15 49.8	8.3	172.807	+4.827	12.3
	5	12 30 16	47 52	+ 1 24.7	5 50.2	57 29.8	34.1	15 41.5	9.3	186.390	+4.300	13.3
	6	13 18 8	47 34	− 4 25.5	5 31.9	56 55.7	35.8	15 32.2	9.8	199.703	+3.546	14.3
	7	14 5 42	48 3	− 9 57.4	4 59.8	56 19.9	35.1	15 22.4	9.5	212.718	+2.620	15.3
	8	14 53 45	49 4	−14 57.2	4 15.6	55 44.8	32.0	15 12.9	8.8	225.429	+1.581	16.3
	9	15 42 49	50 21	−19 12.8	3 21.1	55 12.8	26.7	15 4.1	7.2	237.852	+0.487	17.3
	10	16 33 10	51 36	−22 33.9	2 18.3	54 46.1	19.4	14 56.9	5.3	250.027	−0.611	18.3
	11	17 24 46	52 29	−24 52.2	1 9.6	54 26.7	10.5	14 51.6	2.9	262.012	−1.667	19.3
	12	18 17 15	52 44	−26 1.8	0 1.9	54 16.2	0.5	14 48.7	0.1	273.879	−2.642	20.3
	13	19 9 59	52 19	−25 59.9	1 13.2	54 15.7	9.8	14 48.6	2.7	285.708	−3.500	21.3
	14	20 2 18	51 19	−24 46.7	2 21.1	54 25.5	20.0	14 51.3	5.4	297.585	−4.212	22.3
	15	20 53 37	50 4	−22 25.6	3 23.1	54 45.5	29.5	14 56.7	8.0	309.594	−4.748	23.3
	16	21 43 41	48 52	−19 2.5	4 17.5	55 15.0	37.3	15 4.7	10.2	321.815	−5.080	24.3
	17	22 32 33	48 4	−14 45.0	5 2.5	55 52.3	43.0	15 14.9	11.7	334.313	−5.180	25.3
	18	23 20 37	47 54	− 9 42.5	5 36.5	56 35.3	45.5	15 26.6	12.4	347.140	−5.028	26.3
	19	0 8 31	48 34	− 4 6.0	5 56.9	57 20.8	44.6	15 39.0	12.2	0.320	−4.609	27.3
	20	0 57 5	50 9	+ 1 50.9	6 0.9	58 5.4	39.9	15 51.2	10.8	13.853	−3.925	28.3
	21	1 47 14	52 40	+ 7 51.8	5 44.9	58 45.3	32.1	16 2.0	8.8	27.707	−2.996	29.3
	22	2 39 54	55 56	+13 36.7	5 5.7	59 17.4	21.8	16 10.8	5.9	41.824	−1.866	0.8
	23	3 35 50	59 28	+18 42.4	4 1.9	59 39.2	10.5	16 16.7	2.9	56.129	−0.602	1.8
	24	4 35 18	52 28	+22 44.3	2 35.7	59 49.7	0.4	16 19.6	0.1	70.540	+0.711	2.8
	25	5 37 46	63 58	+25 20.0	0 54.0	59 49.3	9.7	16 19.5	2.7	84.974	+1.982	3.8
	26	6 41 44	63 26	+26 14.0	0 51.3	59 39.6	17.1	16 16.8	4.6	99.364	+3.125	4.8
	27	7 45 10	61 0	+25 22.7	2 28.2	59 22.5	22.1	16 12.2	6.1	113.653	+4.065	5.8
	28	8 46 10	57 29	+22 54.5	3 48.0	59 0.4	25.4	16 6.1	6.9	127.803	+4.748	6.8
	29	9 43 39	53 49	+19 6.5	4 46.9	58 35.0	27.4	15 59.2	7.4	141.785	+5.140	7.8
	30	10 37 28	50 41	+14 19.6	5 25.3	58 7.6	28.5	15 51.8	7.8	155.580	+5.230	8.8
Mai	1	11 28 9	48 27	+ 8 54.3	5 44.9	57 39.1	29.2	15 44.0	8.0	169.173	+5.024	9.8
	2	12 16 36	47 10	+ 3 9.4	5 47.9	57 9.9	29.6	15 36.0	8.0	182.550	+4.546	10.8
	3	13 3 46		− 2 38.5		56 40.3		15 28.0		195.702	+3.834	11.8

Tag	Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1947	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
März 23	0 52 28	125	+ 1 18.1	+15.3	57.7	12 51.8	1.92	6 42	0.7	19 17	3.2
24	1 43 26	130	+ 7 23.5	+15.0	58.2	13 38.7	2.00	6 59	0.7	20 35	3.3
25	2 36 37	137	+13 12.1	+13.9	58.6	14 27.8	2.11	7 18	0.8	21 56	3.4
26	3 32 55	145	+18 21.5	+11.7	58.9	15 20.0	2.25	7 40	1.0	23 18	3.4
27	4 32 52	154	+22 27.7	+ 8.6	59.1	16 15.9	2.40	8 8	1.3	— —	—
28	5 36 10	162	+25 7.6	+ 4.6	59.2	17 15.0	2.52	8 44	1.8	0 39	3.3
29	6 41 31	164	+26 3.7	0.0	59.3	18 16.3	2.56	9 35	2.4	1 54	2.9
30	7 46 50	161	+25 9.5	− 4.5	59.2	19 17.5	2.52	10 38	2.9	2 58	2.4
31	8 50 4	154	+22 31.5	− 8.5	59.0	20 16.6	2.40	11 53	3.2	3 48	1.8
April 1	9 49 53	145	+18 27.3	−11.7	58.8	21 12.4	2.24	13 14	3.4	4 26	1.4
2	10 46 1	136	+13 20.0	−13.8	58.5	22 4.4	2.10	14 36	3.4	4 53	1.0
3	11 38 57	129	+ 7 33.3	−14.9	58.0	22 53.3	1.98	15 56	3.3	5 15	0.8
4	12 29 36	125	+ 1 29.6	−15.2	57.5	23 39.8	1.91	17 14	3.2	5 34	0.7
5	— — —	—	— —	—	—	— —	—	18 30	3.1	5 50	0.7
6	13 18 57	123	− 4 31.5	−14.7	56.9	0 25.1	1.88	19 45	3.1	6 7	0.7
7	14 8 2	123	−10 12.9	−13.6	56.3	1 10.1	1.88	20 58	3.1	6 24	0.8
8	14 57 39	125	−15 19.5	−11.9	55.7	1 55.7	1.92	22 11	3.0	6 43	0.9
9	15 48 25	129	−19 38.4	− 9.6	55.2	2 42.4	1.98	23 21	2.8	7 6	1.1
10	16 40 38	132	−22 58.2	− 7.0	54.7	3 30.5	2.03	— —	—	7 34	1.3
11	17 34 12	135	−25 10.0	− 4.0	54.4	4 20.0	2.08	0 28	2.6	8 9	1.7
12	18 28 37	137	−26 7.5	− 0.8	54.3	5 10.4	2.10	1 26	2.3	8 54	2.1
13	19 23 10	136	−25 48.2	+ 2.4	54.3	6 0.8	2.09	2 16	1.9	9 48	2.4
14	20 17 3	133	−24 13.2	+ 5.5	54.5	6 50.6	2.05	2 56	1.5	10 51	2.7
15	21 9 43	130	−21 27.2	+ 8.3	54.9	7 39.2	2.00	3 27	1.2	11 59	2.9
16	22 0 59	127	−17 37.7	+10.8	55.5	8 26.4	1.94	3 52	0.9	13 10	3.0
17	22 51 3	125	−12 53.7	+12.8	56.1	9 12.4	1.90	4 13	0.8	14 24	3.1
18	23 40 29	123	− 7 26.2	+14.4	56.9	9 57.8	1.89	4 31	0.7	15 38	3.1
19	0 30 5	125	− 1 28.2	+15.3	57.7	10 43.3	1.92	4 47	0.7	16 54	3.2
20	1 20 51	129	+ 4 44.5	+15.6	58.4	11 30.0	1.98	5 4	0.7	18 13	3.3
21	2 13 53	136	+10 52.2	+14.9	59.0	12 19.0	2.10	5 21	0.8	19 35	3.4
22	3 10 12	146	+16 31.1	+13.1	59.5	13 11.2	2.26	5 42	1.0	20 59	3.5
23	4 10 25	156	+21 14.0	+10.2	59.8	14 7.3	2.42	6 8	1.2	22 23	3.4
24	5 14 23	164	+24 33.6	+ 6.2	59.8	15 7.2	2.56	6 42	1.7	23 44	3.1
25	6 20 47	167	+26 8.0	+ 1.6	59.7	16 9.5	2.61	7 28	2.2	— —	—
26	7 27 22	165	+25 47.7	− 3.2	59.5	17 11.9	2.57	8 29	2.8	0 54	2.6
27	8 31 44	157	+23 38.3	− 7.4	59.1	18 12.2	2.44	9 42	3.2	1 49	2.0
28	9 32 19	146	+19 58.1	−10.8	58.7	19 8.7	2.27	11 1	3.4	2 29	1.5
29	10 28 46	136	+15 10.4	−13.1	58.2	20 1.1	2.10	12 23	3.3	2 59	1.1
30	11 21 37	128	+ 9 38.8	−14.4	57.7	20 49.8	1.97	13 42	3.5	3 22	0.9
Mai 1	12 11 49	123	+ 3 44.3	−15.0	57.2	21 36.0	1.89	14 59	3.2	3 41	0.7
2	13 0 31	121	− 2 14.7	−14.8	56.7	22 20.6	1.85	16 14	3.1	3 57	0.7
3	13 48 48	121	− 8 2.1	−14.0	56.2	23 4.8	1.85	17 28	3.1	4 13	0.7

Tag		Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite	Alter
		0h Weltzeit										
1947		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°	d
Mai	3	13 3 46	46 50	− 2 38.5	5 36.0	56 40.3	29.5	15 28.0	8.1	195.702	+3.834	11.8
	4	13 50 36	47 20	− 8 14.5	5 10.4	56 10.8	28.8	15 19.9	7.8	208.622	+2.936	12.8
	5	14 37 56	48 28	−13 24.9	4 31.8	55 42.0	27.2	15 12.1	7.4	221.309	+1.907	13.8
	6	15 26 24	49 55	−17 56.7	3 41.6	55 14.8	24.3	15 4.7	6.6	233.771	+0.802	14.8
	7	16 16 19	51 24	−21 38.3	2 41.4	54 50.5	20.0	14 58.1	5.5	246.026	−0.323	15.8
	8	17 7 43	52 29	−24 19.7	1 33.6	54 30.5	14.1	14 52.6	3.8	258.103	−1.419	16.8
	9	18 0 12	52 52	−25 53.3	0 21.8	54 16.4	6.7	14 48.8	1.9	270.043	−2.441	17.8
	10	18 53 4	52 29	−26 15.1	0 50.2	54 9.7	1.7	14 46.9	0.5	281.900	−3.351	18.8
	11	19 45 33	51 24	−25 24.9	1 58.9	54 11.4	11.3	14 47.4	3.1	293.734	−4.116	19.8
	12	20 36 57	49 57	−23 26.0	3 1.4	54 22.7	21.2	14 50.5	5.8	305.616	−4.709	20.8
	13	21 26 54	48 31	−20 24.6	3 56.5	54 43.9	31.2	14 56.3	8.5	317.621	−5.103	21.8
	14	22 15 25	47 27	−16 28.1	4 43.0	55 15.1	40.2	15 4.8	10.9	329.827	−5.275	22.8
	15	23 2 52	47 2	−11 45.1	5 20.2	55 55.3	47.5	15 15.7	13.0	342.308	−5.206	23.8
	16	23 49 54	47 29	− 6 24.9	5 46.7	56 42.8	52.2	15 28.7	14.2	355.128	−4.880	24.8
	17	0 37 23	48 57	− 0 38.2	5 59.6	57 35.0	53.0	15 42.9	14.4	8.335	−4.291	25.8
	18	1 26 20	51 30	+ 5 21.4	5 55.3	58 28.0	49.4	15 57.3	13.5	21.952	−3.445	26.8
	19	2 17 50	55 2	+11 16.7	5 28.9	59 17.4	40.9	16 10.8	11.1	35.972	−2.370	27.8
	20	3 12 52	59 11	+16 45.6	4 36.1	59 58.3	28.3	16 21.9	7.7	50.347	−1.120	28.8
	21	4 12 3	63 6	+21 21.7	3 15.9	60 26.6	12.9	16 29.6	3.6	64.998	+0.227	0.4
	22	5 15 9	65 40	+24 37.6	1 33.3	60 39.5	3.1	16 33.2	0.9	79.816	+1.574	1.4
	23	6 20 49	65 53	+26 10.9	0 19.2	60 36.4	17.6	16 32.3	4.8	94.676	+2.819	2.4
	24	7 26 42	63 36	+25 51.7	2 5.8	60 18.8	28.9	16 27.5	7.9	109.456	+3.868	3.4
	25	8 30 18	59 44	+23 45.9	3 34.2	59 49.9	36.5	16 19.6	9.9	124.052	+4.651	4.4
	26	9 30 2	55 24	+20 11.7	4 38.9	59 13.4	40.3	16 9.7	11.0	138.388	+5.129	5.4
	27	10 25 26	51 34	+15 32.8	5 20.1	58 33.1	41.0	15 58.7	11.1	152.416	+5.289	6.4
	28	11 17 0	48 43	+10 12.7	5 41.3	57 52.1	39.5	15 47.6	10.8	166.120	+5.142	7.4
	29	12 5 43	46 56	+ 4 31.4	5 45.9	57 12.6	36.6	15 36.8	10.0	179.505	+4.717	8.4
	30	12 52 39	46 15	− 1 14.5	5 36.6	56 36.0	33.3	15 26.8	9.1	192.593	+4.054	9.4
	31	13 38 54	46 31	− 6 51.1	5 14.4	56 2.7	29.6	15 17.7	8.0	205.412	+3.199	10.4
Juni	1	14 25 25	47 34	−12 5.5	4 40.5	55 33.1	25.9	15 9.7	7.1	217.995	+2.204	11.4
	2	15 12 59	49 4	−16 46.0	3 55.0	55 7.2	22.2	15 2.6	6.0	230.374	+1.121	12.4
	3	16 2 3	50 45	−20 41.0	2 58.7	54 45.0	18.2	14 56.6	5.0	242.581	+0.001	13.4
	4	16 52 48	52 8	−23 39.7	1 53.6	54 26.8	13.7	14 51.6	3.7	254.646	−1.106	14.4
	5	17 44 56	52 52	−25 33.3	0 42.8	54 13.1	8.5	14 47.9	2.3	266.600	−2.152	15.4
	6	18 37 48	52 41	−26 16.1	0 29.8	54 4.6	2.5	14 45.6	0.7	278.477	−3.098	16.4
	7	19 30 29	51 41	−25 46.3	1 39.5	54 2.1	4.6	14 44.9	1.2	290.315	−3.907	17.4
	8	20 22 10	50 7	−24 6.8	2 43.2	54 6.7	12.5	14 46.1	3.4	302.158	−4.548	18.4
	9	21 12 17	48 25	−21 23.6	3 38.8	54 19.2	21.4	14 49.5	5.9	314.057	−4.996	19.4
	10	22 0 42	46 58	−17 44.8	4 25.3	54 40.6	30.5	14 55.4	8.3	326.070	−5.231	20.4
	11	22 47 40	46 6	−13 19.5	5 2.8	55 11.1	39.5	15 3.7	10.8	338.262	−5.236	21.4
	12	23 33 46	46 5	− 8 16.7	5 30.7	55 50.6	47.7	15 14.5	12.9	350.701	−4.998	22.4
	13	0 19 51		− 2 46.0		56 38.3		15 27.4		3.456	−4.512	23.4

Tag		Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
		AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1947		h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Mai	3	13 48 48	121	− 8 2.1	−14.0	56.2	23 4.8	1.85	17 28	3.1	4 13	0.7
	4	14 37 35	123	−13 22.7	−12.6	55.7	23 49.5	1.88	18 41	3.0	4 29	0.7
	5	— — —	—	— —	—	—	— —	—	19 54	3.0	4 47	0.8
	6	15 27 36	127	−18 2.8	−10.6	55.2	0 35.5	1.95	21 6	2.9	5 8	1.0
	7	16 19 15	131	−21 49.3	− 8.2	54.8	1 23.0	2.02	22 14	2.7	5 33	1.2
	8	17 12 30	135	−24 31.2	− 5.3	54.5	2 12.2	2.08	23 17	2.4	6 5	1.5
	9	18 6 53	137	−26 0.1	− 2.1	54.3	3 2.5	2.11	— —	—	6 46	1.9
	10	19 1 37	136	−26 11.8	+ 1.1	54.2	3 53.2	2.10	0 10	2.0	7 37	2.3
	11	19 55 46	134	−25 6.8	+ 4.3	54.2	4 43.2	2.06	0 54	1.6	8 36	2.6
	12	20 48 36	130	−22 49.5	+ 7.1	54.4	5 32.0	2.00	1 28	1.3	9 42	2.8
	13	21 39 49	126	−19 27.3	+ 9.7	54.9	6 19.1	1.93	1 55	1.0	10 52	2.9
	14	22 29 30	123	−15 9.1	+11.8	55.4	7 4.8	1.88	2 17	0.8	12 3	3.0
	15	23 18 12	121	−10 4.3	+13.5	56.2	7 49.4	1.85	2 35	0.7	13 16	3.1
	16	0 6 45	122	− 4 23.6	+14.8	57.0	8 33.9	1.87	2 52	0.7	14 30	3.1
	17	0 56 10	126	+ 1 40.8	+15.5	57.9	9 19.2	1.93	3 8	0.7	15 46	3.3
	18	1 47 40	132	+ 7 52.8	+15.4	58.8	10 6.6	2.04	3 25	0.7	17 6	3.4
	19	2 42 28	142	+13 51.7	+14.3	59.6	10 57.4	2.20	3 44	0.9	18 30	3.6
	20	3 41 37	154	+19 10.6	+12.0	60.2	11 52.4	2.39	4 7	1.1	19 57	3.6
	21	4 45 27	165	+23 18.3	+ 8.4	60.6	12 52.2	2.58	4 37	1.5	21 22	3.4
	22	5 53 5	172	+25 45.2	+ 3.7	60.7	13 55.7	2.69	5 19	2.0	22 40	2.9
	23	7 2 10	172	+26 12.1	− 1.5	60.4	15 0.6	2.69	6 16	2.7	23 43	2.3
	24	8 9 39	164	+24 38.4	− 6.2	60.0	16 4.0	2.57	7 27	3.1	— —	—
	25	9 13 12	153	+21 21.4	−10.0	59.4	17 3.5	2.38	8 47	3.4	0 30	1.7
	26	10 11 54	141	+16 47.7	−12.6	58.7	17 58.1	2.18	10 10	3.4	1 4	1.2
	27	11 6 7	131	+11 24.5	−14.2	58.0	18 48.2	2.01	11 31	3.3	1 29	0.9
	28	11 56 55	124	+ 5 35.0	−14.8	57.3	19 34.9	1.90	12 49	3.2	1 48	0.8
	29	12 45 32	120	− 0 21.8	−14.8	56.7	20 19.5	1.83	14 4	3.1	2 5	0.7
	30	13 33 13	119	− 6 10.7	−14.2	56.1	21 3.1	1.82	15 17	3.0	2 21	0.7
	31	14 21 5	121	−11 37.7	−13.0	55.6	21 46.9	1.85	16 29	3.0	2 37	0.7
Juni	1	15 10 1	124	−16 30.0	−11.3	55.1	22 31.8	1.90	17 41	3.0	2 53	0.7
	2	16 0 37	129	−20 34.9	− 9.0	54.8	23 18.3	1.98	18 53	2.9	3 12	0.9
	3	— — —	—	— —	—	—	— —	—	20 3	2.8	3 36	1.1
	4	16 53 2	133	−23 40.4	− 6.3	54.4	0 6.7	2.05	21 8	2.5	4 5	1.4
	5	17 47 0	136	−25 36.3	− 3.3	54.2	0 56.5	2.10	22 5	2.2	4 43	1.8
	6	18 41 44	137	−26 16.3	0.0	54.1	1 47.2	2.11	22 52	1.8	5 30	2.2
	7	19 36 12	135	−25 38.7	+ 3.1	54.0	2 37.6	2.08	23 29	1.4	6 26	2.5
	8	20 29 28	131	−23 47.1	+ 6.1	54.1	3 26.8	2.01	23 58	1.1	7 30	2.7
	9	21 20 57	126	−20 48.7	+ 8.7	54.4	4 14.2	1.94	— —	—	8 38	2.9
	10	22 10 35	122	−16 53.1	+10.9	54.8	4 59.7	1.86	0 21	0.9	9 48	2.9
	11	22 58 43	119	−12 10.3	+12.6	55.3	5 43.8	1.82	0 41	0.7	10 59	3.0
	12	23 46 7	118	− 6 50.1	+14.0	56.0	6 27.2	1.81	0 57	0.7	12 10	3.0
	13	0 33 47	120	− 1 3.2	+14.9	56.9	7 10.8	1.84	1 13	0.7	13 23	3.1

Tag	Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite	Alter
	0h Weltzeit										
1947	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°	d
Juni 13	0 19 51	47 6	− 2 46.0	5 47.8	56 38.3	53.9	15 27.4	14.7	3.456	−4.512	23.4
14	1 6 57	49 14	+ 3 1.8	5 51.4	57 32.2	56.9	15 42.1	15.5	16.587	−3.780	24.4
15	1 56 11	52 33	+ 8 53.2	5 37.1	58 29.1	55.6	15 57.6	15.2	30.141	−2.816	25.4
16	2 48 44	56 54	+14 30.3	4 59.4	59 24.7	49.0	16 12.8	13.3	44.138	−1.657	26.4
17	3 45 38	61 37	+19 29.7	3 53.9	60 13.7	36.9	16 26.1	10.1	58.562	−0.360	27.4
18	4 47 15	65 39	+23 23.6	2 20.4	60 50.6	20.4	16 36.2	5.5	73.351	+0.992	28.4
19	5 52 54	67 35	+25 44.0	0 27.1	61 11.0	1.5	16 41.7	0.4	88.400	+2.296	0.1
20	7 0 29	66 39	+26 11.1	1 29.7	61 12.5	17.3	16 42.1	4.7	103.564	+3.448	1.1
21	8 7 8	63 13	+24 41.4	3 12.4	60 55.2	33.0	16 37.4	8.9	118.681	+4.353	2.1
22	9 10 21	58 37	+21 29.0	4 29.8	60 22.2	44.1	16 28.5	12.1	133.598	+4.950	3.1
23	10 8 58	54 5	+16 59.2	5 19.5	59 38.1	50.3	16 16.4	13.7	148.193	+5.210	4.1
24	11 3 3	50 26	+11 39.7	5 45.0	58 47.8	51.7	16 2.7	14.1	162.387	+5.141	5.1
25	11 53 29	47 56	+ 5 54.7	5 50.9	57 56.1	49.5	15 48.6	13.5	176.150	+4.775	6.1
26	12 41 25	46 38	+ 0 3.8	5 41.9	57 6.6	44.9	15 35.1	12.2	189.491	+4.159	7.1
27	13 28 3	46 23	− 5 38.1	5 20.2	56 21.7	39.0	15 22.9	10.6	202.450	+3.344	8.1
28	14 14 26	47 4	−10 58.3	4 47.6	55 42.7	32.5	15 12.3	8.9	215.083	+2.386	9.1
29	15 1 30	48 23	−15 45.9	4 4.5	55 10.2	26.0	15 3.4	7.0	227.451	+1.335	10.1
30	15 49 53	50 2	−19 50.4	3 11.3	54 44.2	19.8	14 56.4	5.5	239.615	+0.241	11.1
Juli 1	16 39 55	51 34	−23 1.7	2 8.9	54 24.4	14.2	14 50.9	3.8	251.631	−0.849	12.1
2	17 31 29	52 37	−25 10.6	0 59.9	54 10.2	8.7	14 47.1	2.4	263.549	−1.890	13.1
3	18 24 6	52 46	−26 10.5	0 12.3	54 1.5	3.4	14 44.7	0.9	275.410	−2.841	14.1
4	19 16 52	52 2	−25 58.2	1 23.3	53 58.1	2.1	14 43.8	0.6	287.249	−3.666	15.1
5	20 8 54	50 33	−24 34.9	2 28.7	54 0.2	7.8	14 44.4	2.1	299.097	−4.333	16.1
6	20 59 27	48 44	−22 6.2	3 26.0	54 8.0	14.2	14 46.5	3.9	310.986	−4.812	17.1
7	21 48 11	47 1	−18 40.2	4 13.5	54 22.2	21.2	14 50.4	5.7	322.948	−5.085	18.1
8	22 35 12	45 44	−14 26.7	4 51.1	54 43.4	28.6	14 56.1	7.8	335.023	−5.135	19.1
9	23 20 56	45 12	− 9 35.6	5 18.8	55 12.0	36.4	15 3.9	9.9	347.256	−4.953	20.1
10	0 6 8	45 36	− 4 16.8	5 36.2	55 48.4	43.8	15 13.8	12.0	359.700	−4.537	21.1
11	0 51 44	47 5	+ 1 19.4	5 42.1	56 32.2	50.1	15 25.8	13.6	12.414	−3.891	22.1
12	1 38 49	49 46	+ 7 1.5	5 33.9	57 22.3	54.3	15 39.4	14.8	25.458	−3.029	23.1
13	2 28 35	53 36	+12 35.4	5 7.1	58 16.6	55.2	15 54.2	15.1	38.887	−1.978	24.1
14	3 22 11	58 18	+17 42.5	4 16.6	59 11.8	51.3	16 9.3	13.9	52.742	−0.781	25.1
15	4 20 29	63 4	+21 59.1	2 59.0	60 3.1	42.2	16 23.2	11.5	67.037	+0.500	26.1
16	5 23 33	66 38	+24 58.1	1 16.1	60 45.3	27.7	16 34.7	7.6	81.740	+1.782	27.1
17	6 30 11	67 43	+26 14.2	0 41.1	61 13.0	9.2	16 42.3	2.5	96.773	+2.967	28.1
18	7 37 54	65 53	+25 33.1	2 35.1	61 22.2	10.6	16 44.8	2.9	112.002	+3.955	29.1
19	8 43 47	62 1	+22 58.0	4 8.9	61 11.6	29.1	16 41.9	7.9	127.259	+4.662	0.8
20	9 45 48	57 24	+18 49.1	5 14.2	60 42.5	43.8	16 34.0	12.0	142.363	+5.035	1.8
21	10 43 12	53 14	+13 34.9	5 50.5	59 58.7	52.9	16 22.0	14.4	157.155	+5.062	2.8
22	11 36 26	50 4	+ 7 44.4	6 2.3	59 5.8	56.7	16 7.6	15.4	171.521	+4.766	3.8
23	12 26 30	48 6	+ 1 42.1	5 55.1	58 9.1	55.7	15 52.2	15.2	185.407	+4.194	4.8
24	13 14 36		− 4 13.0		57 13.4		15 37.0		198.810	+3.408	5.8

Tag		Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
		AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1947		h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Juni	13	0 33 47	120	− 1 3.2	+14.9	56.9	7 10.8	1.84	1 13	0.7	13 23	3.1
	14	1 22 55	126	+ 4 58.3	+15.2	57.9	7 55.8	1.93	1 28	0.7	14 39	3.3
	15	2 14 51	134	+10 58.5	+14.7	58.8	8 43.7	2.08	1 46	0.8	16 0	3.4
	16	3 10 55	146	+16 36.0	+13.2	59.8	9 35.7	2.27	2 6	1.0	17 24	3.6
	17	4 12 8	160	+21 22.3	+10.4	60.5	10 32.8	2.49	2 32	1.3	18 51	3.6
	18	5 18 32	172	+24 44.6	+ 6.2	61.0	11 35.1	2.68	3 8	1.8	20 14	3.2
	19	6 28 33	177	+26 13.1	+ 1.0	61.2	12 40.9	2.78	3 57	2.4	21 26	2.7
	20	7 39 5	174	+25 33.3	− 4.3	61.1	13 47.4	2.73	5 4	3.1	22 23	2.0
	21	8 46 46	164	+22 53.0	− 8.9	60.6	14 50.9	2.55	6 24	3.4	23 3	1.4
	22	9 49 33	150	+18 38.1	−12.1	59.9	15 49.6	2.34	7 49	3.5	23 32	1.1
	23	10 47 5	138	+13 20.4	−14.1	59.1	16 43.1	2.13	9 14	3.5	23 54	0.8
	24	11 40 12	128	+ 7 29.0	−15.0	58.2	17 32.1	1.97	10 35	3.3	— —	—
	25	12 30 12	122	+ 1 26.8	−15.1	57.3	18 18.0	1.87	11 53	3.2	0 12	0.7
	26	13 18 27	120	− 4 28.8	−14.5	56.5	19 2.2	1.83	13 7	3.1	0 28	0.7
	27	14 6 14	120	−10 3.8	−13.4	55.8	19 45.9	1.83	14 20	3.0	0 44	0.7
	28	14 54 34	122	−15 6.4	−11.8	55.2	20 30.2	1.87	15 32	3.0	1 0	0.7
	29	15 44 17	126	−19 25.0	− 9.7	54.8	21 15.8	1.94	16 44	2.9	1 18	0.8
	30	16 35 48	131	−22 48.4	− 7.2	54.4	22 3.3	2.02	17 53	2.8	1 40	1.0
Juli	1	17 29 3	135	−25 6.1	− 4.2	54.2	22 52.5	2.08	18 59	2.6	2 7	1.3
	2	18 23 28	137	−26 10.2	− 1.1	54.0	23 42.8	2.11	19 59	2.3	2 42	1.6
	3	— — —	—	— —	—	—	— —	—	20 49	1.9	3 26	2.0
	4	19 18 5	136	−25 57.1	+ 2.2	54.0	0 33.4	2.10	21 30	1.5	4 19	2.4
	5	20 11 51	133	−24 28.1	+ 5.2	54.0	1 23.0	2.04	22 1	1.2	5 21	2.7
	6	21 3 58	128	−21 49.7	+ 7.9	54.2	2 11.1	1.96	22 26	0.9	6 28	2.8
	7	21 54 3	123	−18 11.4	+10.2	54.4	2 57.1	1.88	22 46	0.8	7 37	2.9
	8	22 42 17	119	−13 44.2	+12.0	54.8	3 41.3	1.81	23 3	0.7	8 47	2.9
	9	23 29 14	116	− 8 38.9	+13.4	55.3	4 24.2	1.78	23 18	0.6	9 57	2.9
	10	0 15 47	117	− 3 6.4	+14.3	56.0	5 6.6	1.78	23 34	0.6	11 8	3.0
	11	1 3 0	120	+ 2 42.4	+14.7	56.7	5 49.8	1.83	23 50	0.7	12 21	3.1
	12	1 52 9	126	+ 8 34.6	+14.5	57.6	6 34.9	1.94	— —	—	13 37	3.2
	13	2 44 38	136	+14 13.8	+13.6	58.6	7 23.3	2.10	0 8	0.8	14 57	3.4
	14	3 41 43	149	+19 18.0	+11.6	59.5	8 16.3	2.32	0 30	1.1	16 20	3.5
	15	4 44 14	163	+23 18.8	+ 8.3	60.3	9 14.7	2.55	1 0	1.5	17 44	3.4
	16	5 51 50	174	+25 44.6	+ 3.7	61.0	10 18.2	2.72	1 41	2.1	19 2	3.0
	17	7 2 25	177	+26 9.5	− 1.7	61.3	11 24.6	2.78	2 39	2.7	20 7	2.4
	18	8 12 38	172	+24 25.5	− 6.9	61.3	12 30.7	2.70	3 53	3.3	20 55	1.7
	19	9 19 22	161	+20 47.2	−11.1	61.0	13 33.4	2.51	5 19	3.6	21 30	1.3
	20	10 21 3	148	+15 44.9	−13.9	60.3	14 30.9	2.29	6 47	3.6	21 56	1.0
	21	11 17 46	136	+ 9 52.6	−15.3	59.4	15 23.6	2.10	8 13	3.5	22 16	0.8
	22	12 10 31	128	+ 3 39.8	−15.6	58.5	16 12.2	1.97	9 35	3.3	22 33	0.7
	23	13 0 39	123	− 2 30.7	−15.1	57.5	16 58.3	1.89	10 52	3.2	22 49	0.7
	24	13 49 31	122	− 8 22.0	−14.0	56.6	17 43.1	1.86	12 7	3.1	23 6	0.7

Mond 1947

Tag		0ʰ Weltzeit: Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite	Alter
1947		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°	d
Juli	24	13 14 36	47 17	− 4 13.0	5 33.5	57 13.4	51.0	15 37.0	13.9	198.810	+3.408	5.8
	25	14 1 53	47 25	− 9 46.5	5 0.2	56 22.4	44.1	15 23.1	12.0	211.769	+2.469	6.8
	26	14 49 18	48 21	−14 46.7	4 16.8	55 38.3	35.9	15 11.1	9.8	224.349	+1.435	7.8
	27	15 37 39	49 44	−19 3.5	3 24.3	55 2.4	27.5	15 1.3	7.5	236.629	+0.359	8.8
	28	16 27 23	51 12	−22 27.8	2 23.1	54 34.9	19.2	14 53.8	5.2	248.691	−0.713	9.8
	29	17 18 35	52 20	−24 50.9	1 15.3	54 15.7	11.5	14 48.6	3.2	260.610	−1.738	10.8
	30	18 10 55	52 45	−26 6.2	0 3.6	54 4.2	4.7	14 45.4	1.2	272.453	−2.680	11.8
	31	19 3 40	52 18	−26 9.8	1 8.2	53 59.5	1.5	14 44.2	0.4	284.276	−3.502	12.8
Aug.	1	19 55 58	51 3	−25 1.6	2 15.7	54 1.0	7.0	14 44.6	1.9	296.125	−4.172	13.8
	2	20 47 1	49 20	−22 45.9	3 15.7	54 8.0	12.0	14 46.5	3.3	308.031	−4.662	14.8
	3	21 36 21	47 32	−19 30.2	4 6.0	54 20.0	16.9	14 49.8	4.6	320.021	−4.949	15.8
	4	22 23 53	46 2	−15 24.2	4 45.5	54 36.9	21.9	14 54.4	5.9	332.117	−5.018	16.8
	5	23 9 55	45 8	−10 38.7	5 14.2	54 58.8	27.0	15 0.3	7.4	344.338	−4.858	17.8
	6	23 55 3	45 4	− 5 24.5	5 31.9	55 25.8	32.3	15 7.7	8.8	356.710	−4.469	18.8
	7	0 40 7	45 57	+ 0 7.4	5 38.0	55 58.1	37.7	15 16.5	10.2	9.264	−3.860	19.8
	8	1 26 4	47 54	+ 5 45.4	5 31.2	56 35.8	42.4	15 26.7	11.6	22.037	−3.048	20.8
	9	2 13 58	51 0	+11 16.6	5 8.5	57 18.2	46.0	15 38.3	12.6	35.077	−2.060	21.8
	10	3 4 58	55 2	+16 25.1	4 26.5	58 4.2	47.6	15 50.9	12.9	48.432	−0.938	22.8
	11	4 0 0	59 33	+20 51.6	3 21.4	58 51.8	45.7	16 3.8	12.5	62.144	+0.268	23.8
	12	4 59 33	63 39	+24 13.0	1 52.5	59 37.5	39.8	16 16.3	10.8	76.241	+1.489	24.8
	13	6 3 12	66 4	+26 5.5	0 4.7	60 17.3	29.2	16 27.1	8.0	90.718	+2.646	25.8
	14	7 9 16	66 0	+26 10.2	1 49.3	60 46.5	14.4	16 35.1	3.9	105.526	+3.651	26.8
	15	8 15 16	63 33	+24 20.9	3 33.3	61 0.9	3.2	16 39.0	0.9	120.566	+4.418	27.8
	16	9 18 49	59 44	+20 47.6	4 54.4	60 57.7	20.9	16 38.1	5.7	135.695	+4.881	28.8
	17	10 18 33	55 44	+15 53.2	5 46.6	60 36.8	36.7	16 32.4	10.0	150.742	+5.003	0.5
	18	11 14 17	52 22	+10 6.6	6 10.9	60 0.1	48.2	16 22.4	13.1	165.541	+4.785	1.5
	19	12 6 39	50 2	+ 3 55.7	6 11.6	59 11.9	54.6	16 9.3	14.9	179.961	+4.265	2.5
	20	12 56 41	48 45	− 2 15.9	5 53.5	58 17.3	55.8	15 54.4	15.2	193.921	+3.501	3.5
	21	13 45 26	48 29	− 8 9.4	5 20.9	57 21.5	52.8	15 39.2	14.4	207.396	+2.563	4.5
	22	14 33 55	49 1	−13 30.3	4 36.7	56 28.7	46.4	15 24.8	12.6	220.409	+1.520	5.5
	23	15 22 56	50 5	−18 7.0	2 43.0	55 42.3	38.1	15 12.2	10.4	233.019	+0.431	6.5
	24	16 13 1	51 19	−21 50.0	2 41.3	55 4.2	28.7	15 1.8	7.8	245.305	−0.651	7.5
	25	17 4 20	52 21	−24 31.3	1 33.0	54 35.5	19.0	14 54.0	5.2	257.354	−1.683	8.5
	26	17 56 41	52 49	−26 4.3	0 21.1	54 16.5	9.7	14 48.8	2.6	269.254	−2.627	9.5
	27	18 49 30	52 32	−26 25.4	0 51.6	54 6.8	1.2	14 46.2	0.4	281.086	−3.450	10.5
	28	19 42 2	51 28	−25 33.8	2 0.9	54 5.6	6.3	14 45.8	1.8	292.922	−4.124	11.5
	29	20 33 30	49 55	−23 32.9	3 3.9	54 11.9	12.6	14 47.6	3.4	304.818	−4.621	12.5
	30	21 23 25	48 12	−20 29.0	3 57.8	54 24.5	17.7	14 51.0	4.8	316.819	−4.918	13.5
	31	22 11 37	46 41	−16 31.2	4 41.4	54 42.2	21.7	14 55.8	5.9	328.954	−4.997	14.5
Sept.	1	22 58 18	45 38	−11 49.8	5 13.6	55 3.9	24.9	15 1.7	6.8	341.241	−4.846	15.5
	2	23 43 56	45 20	− 6 36.2	5 34.0	55 28.8	27.4	15 8.5	7.5	353.691	−4.463	16.5
	3	0 29 16		− 1 2.2		55 56.2		15 16.0		6.309	−3.858	17.5

Tag	Obere Kulmination in Greenwich AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	0h Länge, + 50° Breite Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1947	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Juli 24	13 49 31	122	− 8 22.0	−14.0	56.6	17 43.1	1.86	12 7	3.1	23 6	0.7
25	14 38 18	123	−13 40.9	−12.5	55.8	18 27.8	1.88	13 21	3.1	23 24	0.8
26	15 27 56	126	−18 16.3	−10.4	55.1	19 13.4	1.93	14 34	3.0	23 44	1.0
27	16 19 0	130	−21 57.8	− 8.0	54.6	20 0.4	1.99	15 44	2.9	— —	—
28	17 11 43	134	−24 35.7	− 5.1	54.3	20 49.0	2.06	16 52	2.7	0 10	1.2
29	18 5 45	136	−26 2.0	− 2.0	54.1	21 39.0	2.10	17 54	2.4	0 42	1.5
30	19 0 21	136	−26 11.7	+ 1.2	54.0	22 29.5	2.10	18 47	2.0	1 23	1.9
31	19 54 30	134	−25 4.5	+ 4.4	54.0	23 19.6	2.06	19 30	1.6	2 13	2.3
Aug. 1	— — —	—	— —	—	—	— —	—	20 4	1.3	3 13	2.6
2	20 47 18	130	−22 44.9	+ 7.2	54.1	0 8.3	1.99	20 31	1.0	4 19	2.8
3	21 38 12	125	−19 21.6	+ 9.7	54.3	0 55.1	1.91	20 52	0.8	5 28	2.9
4	22 27 7	120	−15 5.5	+11.6	54.6	1 40.0	1.83	21 10	0.7	6 38	2.9
5	23 14 26	117	−10 8.5	+13.1	55.0	2 23.2	1.78	21 25	0.6	7 48	2.9
6	0 0 51	116	− 4 42.5	+14.0	55.5	3 5.6	1.76	21 40	0.6	8 59	3.0
7	0 47 18	117	+ 1 0.8	+14.5	56.1	3 48.0	1.78	21 55	0.7	10 10	3.0
8	1 34 55	121	+ 6 48.8	+14.4	56.7	4 31.5	1.86	22 12	0.8	11 24	3.1
9	2 24 55	129	+12 27.1	+13.7	57.5	5 17.5	1.98	22 32	0.9	12 40	3.3
10	3 18 35	140	+17 37.9	+12.1	58.3	6 7.1	2.16	22 57	1.2	14 0	3.4
11	4 16 57	152	+21 58.4	+ 9.4	59.1	7 1.3	2.37	23 32	1.7	15 22	3.3
12	5 20 24	164	+25 1.6	+ 5.6	59.9	8 0.7	2.57	— —	—	16 41	3.1
13	6 28 0	172	+26 20.6	+ 0.8	60.5	9 4.2	2.70	0 20	2.4	17 50	2.6
14	7 37 21	173	+25 37.6	− 4.4	60.9	10 9.4	2.70	1 26	3.0	18 45	2.0
15	8 45 24	166	+22 52.9	− 9.2	61.0	11 13.3	2.60	2 46	3.5	19 25	1.5
16	9 49 46	155	+18 26.0	−12.8	60.8	12 13.6	2.42	4 14	3.7	19 55	1.1
17	10 49 34	144	+12 47.8	−15.1	60.3	13 9.3	2.23	5 42	3.6	20 17	0.9
18	11 45 13	135	+ 6 31.3	−16.1	59.6	14 0.8	2.08	7 8	3.5	20 36	0.7
19	12 37 45	129	+ 0 5.0	−16.0	58.6	14 49.3	1.98	8 30	3.3	20 53	0.7
20	13 28 27	125	− 6 8.7	−15.1	57.7	15 35.9	1.92	9 49	3.2	21 9	0.7
21	14 18 29	125	−11 52.5	−13.5	56.7	16 21.9	1.92	11 5	3.2	21 27	0.8
22	15 8 50	127	−16 53.0	−11.5	55.9	17 8.2	1.95	12 20	3.1	21 47	0.9
23	16 0 13	130	−20 59.1	− 9.0	55.2	17 55.5	2.00	13 33	3.0	22 11	1.1
24	16 52 58	134	−24 1.5	− 6.2	54.7	18 44.2	2.05	14 43	2.8	22 40	1.4
25	17 46 57	136	−25 52.5	− 3.1	54.3	19 34.1	2.10	15 47	2.5	23 18	1.8
26	18 41 36	137	−26 26.9	+ 0.2	54.1	20 24.6	2.11	16 43	2.1	— —	—
27	19 36 3	135	−25 43.4	+ 3.4	54.1	21 15.0	2.08	17 30	1.7	0 6	2.2
28	20 29 25	131	−23 45.1	+ 6.4	54.2	22 4.3	2.02	18 7	1.4	1 3	2.5
29	21 21 6	127	−20 39.0	+ 9.0	54.4	22 51.9	1.95	18 35	1.1	2 8	2.8
30	22 10 53	122	−16 35.2	+11.2	54.7	23 37.6	1.87	18 58	0.9	3 17	2.9
31	— — —	—	— —	—	—	— —	—	19 16	0.7	4 27	3.0
Sept. 1	22 58 59	119	−11 45.3	+12.9	55.1	0 21.7	1.81	19 32	0.6	5 39	3.0
2	23 45 59	117	− 6 21.6	+14.0	55.5	1 4.6	1.78	19 47	0.6	6 50	3.0
3	0 32 39	117	− 0 36.9	+14.6	56.0	1 47.2	1.78	20 2	0.6	8 1	3.0

Tag		0h Weltzeit										
		Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite	Alter
1947		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°	d
Sept.	3	0 29 16	45 53	− 1 2.2	5 41.8	55 56.2	29.7	15 16.0	8.1	6.309	−3.858	17.5
	4	1 15 9	47 23	+ 4 39.6	5 35.9	56 25.9	31.6	15 24.1	8.6	19.103	−3.049	18.5
	5	2 2 32	49 52	+10 15.5	5 14.6	56 57.5	33.3	15 32.7	9.1	32.085	−2.070	19.5
	6	2 52 24	53 15	+15 30.1	4 35.3	57 30.8	34.6	15 41.8	9.4	45.276	−0.962	20.5
	7	3 45 39	57 11	+20 5.4	3 35.8	58 5.4	34.6	15 51.2	9.4	58.699	+0.219	21.5
	8	4 42 50	60 56	+23 41.2	2 15.2	58 40.0	33.2	16 0.6	9.0	72.383	+1.411	22.5
	9	5 43 46	63 34	+25 56.4	0 36.9	59 13.2	29.2	16 9.6	8.0	86.346	+2.544	23.5
	10	6 47 20	64 17	+26 33.3	1 10.5	59 42.4	22.3	16 17.6	6.1	100.591	+3.542	24.5
	11	7 51 37	62 53	+25 22.8	2 54.6	60 4.7	12.2	16 23.7	3.3	115.091	+4.331	25.5
	12	8 54 30	59 59	+22 28.2	4 22.9	60 16.9	0.5	16 27.0	0.1	129.780	+4.846	26.5
	13	9 54 29	56 34	+18 5.3	5 27.7	60 16.4	14.4	16 26.9	4.0	144.558	+5.042	27.5
	14	10 51 3	53 29	+12 37.6	6 6.2	60 2.0	27.8	16 22.9	7.5	159.296	+4.904	28.5
	15	11 44 32	51 10	+ 6 31.4	6 19.6	59 34.2	39.1	16 15.4	10.7	173.857	+4.448	0.2
	16	12 35 42	49 50	+ 0 11.8	6 11.0	58 55.1	46.7	16 4.7	12.7	188.121	+3.720	1.2
	17	13 25 32	49 26	− 5 59.2	5 44.2	58 8.4	50.0	15 52.0	13.6	202.001	+2.786	2.2
	18	14 14 58	49 50	−11 43.4	5 2.5	57 18.4	49.1	15 38.4	13.4	215.457	+1.720	3.2
	19	15 4 48	50 44	−16 45.9	4 9.0	56 29.3	44.6	15 25.0	12.2	228.488	+0.594	4.2
	20	15 55 32	51 50	−20 54.9	3 6.1	55 44.7	37.5	15 12.8	10.2	241.133	−0.532	5.2
	21	16 47 22	52 47	−24 1.0	1 56.5	55 7.2	28.4	15 2.6	7.7	253.456	−1.607	6.2
	22	17 40 9	53 12	−25 57.5	0 43.0	54 38.8	18.4	14 54.9	5.0	265.536	−2.588	7.2
	23	18 33 21	52 54	−26 40.5	0 31.0	54 20.4	8.1	14 49.9	2.2	277.459	−3.443	8.2
	24	19 26 15	51 52	−26 9.5	1 42.2	54 12.3	1.8	14 47.7	0.5	289.312	−4.145	9.2
	25	20 18 7	50 21	−24 27.3	2 47.4	54 14.1	10.9	14 48.2	2.9	301.177	−4.669	10.2
	26	21 8 28	48 41	−21 39.9	3 44.8	54 25.0	18.5	14 51.1	5.1	313.124	−4.993	11.2
	27	21 57 9	47 10	−17 55.1	4 32.5	54 43.5	24.7	14 56.2	6.7	325.213	−5.100	12.2
	28	22 44 19	46 9	−13 22.6	5 9.9	55 8.2	28.9	15 2.9	7.9	337.487	−4.975	13.2
	29	23 30 28	45 46	− 8 12.7	5 35.6	55 37.1	31.2	15 10.8	8.5	349.973	−4.613	14.2
	30	0 16 14	46 14	− 2 37.1	5 48.5	56 8.3	31.8	15 19.3	8.6	2.683	−4.017	15.2
Okt.	1	1 2 28	47 36	+ 3 11.4	5 46.8	56 40.1	30.8	15 27.9	8.4	15.615	−3.205	16.2
	2	1 50 4	49 54	+ 8 58.2	5 28.5	57 10.9	28.7	15 36.3	7.8	28.757	−2.209	17.2
	3	2 39 58	53 0	+14 26.7	4 51.3	57 39.6	26.1	15 44.1	7.2	42.095	−1.076	18.2
	4	3 32 58	56 36	+19 18.0	3 53.5	58 5.7	23.2	15 51.3	6.3	55.612	+0.135	19.2
	5	4 29 34	60 0	+23 11.5	2 35.2	58 28.9	20.0	15 57.6	5.4	69.299	+1.355	20.2
	6	5 29 34	62 25	+25 46.7	1 0.2	58 48.9	16.7	16 3.0	4.6	83.146	+2.512	21.2
	7	6 31 59	63 4	+26 46.9	0 43.5	59 5.6	12.8	16 7.6	3.4	97.146	+3.532	22.2
	8	7 35 3	61 48	+26 3.4	2 24.9	59 18.4	7.9	16 11.0	2.2	111.286	+4.348	23.2
	9	8 36 51	59 10	+23 38.5	3 53.6	59 26.3	1.8	16 13.2	0.5	125.541	+4.903	24.2
	10	9 36 1	56 0	+19 44.9	5 2.7	59 28.1	5.6	16 13.7	1.5	139.870	+5.157	25.2
	11	10 32 1	53 6	+14 42.2	5 49.2	59 22.5	14.1	16 12.2	3.9	154.212	+5.090	26.2
	12	11 25 7	50 56	+ 8 53.0	6 13.1	59 8.4	22.8	16 8.3	6.2	168.490	+4.708	27.2
	13	12 16 3	49 41	+ 2 39.9	6 15.7	58 45.6	30.8	16 2.1	8.4	182.621	+4.041	28.2
	14	13 5 44		− 3 35.8		58 14.8		15 53.7		196.525	+3.142	29.2

Tag		Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
		AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1947		h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Sept.	3	0 32 39	117	− 0 36.9	+14.6	56.0	1 47.2	1.78	20 2	0.6	8 1	3.0
	4	1 20 1	120	+ 5 15.2	+14.6	56.5	2 30.5	1.83	20 18	0.7	9 15	3.1
	5	2 9 8	126	+10 59.9	+14.0	57.0	3 15.6	1.93	20 36	0.8	10 30	3.2
	6	3 1 9	135	+16 20.0	+12.6	57.6	4 3.5	2.08	20 59	1.1	11 48	3.3
	7	3 57 3	145	+20 55.2	+10.2	58.2	4 55.3	2.25	21 29	1.5	13 8	3.3
	8	4 57 23	156	+24 22.4	+ 6.9	58.8	5 51.6	2.43	22 11	2.1	14 27	3.1
	9	6 1 45	165	+26 17.6	+ 2.6	59.4	6 51.8	2.57	23 8	2.7	15 38	2.7
	10	7 8 33	168	+26 22.0	− 2.3	59.8	7 54.5	2.63	— —	—	16 37	2.1
	11	8 15 20	165	+24 29.2	− 7.1	60.2	8 57.2	2.58	0 20	3.2	17 21	1.6
	12	9 19 48	157	+20 48.6	−11.2	60.3	9 57.5	2.44	1 43	3.6	17 54	1.2
	13	10 20 36	147	+15 42.9	−14.1	60.2	10 54.3	2.28	3 11	3.6	18 19	0.9
	14	11 17 40	138	+ 9 40.9	−15.8	59.8	11 47.2	2.14	4 38	3.6	18 39	0.8
	15	12 11 40	132	+ 3 12.0	−16.4	59.2	12 37.1	2.03	6 1	3.4	18 56	0.7
	16	13 3 40	128	− 3 17.9	−16.0	58.5	13 25.1	1.97	7 23	3.3	19 13	0.7
	17	13 54 47	128	− 9 27.1	−14.7	57.6	14 12.1	1.96	8 42	3.3	19 29	0.7
	18	14 46 0	129	−14 58.0	−12.8	56.8	14 59.3	1.98	9 59	3.2	19 48	0.9
	19	15 38 3	132	−19 36.3	−10.3	56.0	15 47.2	2.02	11 15	3.1	20 10	1.0
	20	16 31 17	135	−23 10.8	− 7.5	55.3	16 36.4	2.08	12 28	2.9	20 38	1.3
	21	17 25 40	137	−25 32.9	− 4.3	54.8	17 26.7	2.11	13 37	2.7	21 13	1.7
	22	18 20 42	138	−26 37.0	− 1.0	54.4	18 17.6	2.13	14 37	2.3	21 57	2.0
	23	19 15 36	136	−26 21.7	+ 2.3	54.2	19 8.4	2.10	15 28	1.9	22 51	2.4
	24	20 9 30	133	−24 49.2	+ 5.4	54.2	19 58.3	2.05	16 8	1.5	23 54	2.7
	25	21 1 48	128	−22 5.9	+ 8.2	54.4	20 46.5	1.97	16 38	1.1	— —	—
	26	21 52 15	124	−18 20.5	+10.5	54.7	21 32.9	1.90	17 3	0.9	1 2	2.9
	27	22 41 0	120	−13 43.3	+12.5	55.1	22 17.6	1.83	17 22	0.8	2 12	3.0
	28	23 28 35	118	− 8 26.0	+13.9	55.6	23 1.1	1.80	17 39	0.7	3 24	3.0
	29	0 15 44	118	− 2 40.9	+14.8	56.1	23 44.2	1.80	17 54	0.6	4 36	3.0
	30	— — —	—	— —	—	—	— —	—	18 9	0.6	5 48	3.0
Okt.	1	1 3 22	121	+ 3 18.1	+15.2	56.7	0 27.8	1.84	18 24	0.5	7 2	3.1
	2	1 52 32	126	+ 9 15.4	+14.6	57.2	1 12.9	1.93	18 42	0.8	8 19	3.2
	3	2 44 17	133	+14 52.8	+13.4	57.7	2 0.5	2.05	19 3	1.0	9 37	3.3
	4	3 39 32	143	+19 49.3	+11.2	58.1	2 51.7	2.22	19 30	1.4	10 58	3.3
	5	4 38 48	153	+23 41.7	+ 8.0	58.5	3 46.9	2.38	20 8	1.8	12 18	3.2
	6	5 41 49	161	+26 6.6	+ 3.9	58.9	4 45.8	2.51	20 59	2.4	13 32	2.8
	7	6 47 12	165	+26 46.0	− 0.7	59.2	5 47.0	2.57	22 5	3.0	14 34	2.3
	8	7 52 47	162	+25 32.2	− 5.4	59.4	6 48.5	2.53	23 23	3.4	15 21	1.7
	9	8 56 25	155	+22 31.4	− 9.5	59.5	7 48.0	2.42	— —	—	15 56	1.3
	10	9 56 47	146	+18 1.5	−12.8	59.5	8 44.3	2.27	0 48	3.5	16 22	1.0
	11	10 53 37	138	+12 26.6	−15.0	59.3	9 37.1	2.13	2 13	3.5	16 43	0.8
	12	11 47 30	132	+ 6 12.2	−16.1	59.0	10 26.9	2.03	3 36	3.4	17 0	0.7
	13	12 39 26	128	− 0 17.0	−16.2	58.5	11 14.7	1.97	4 57	3.3	17 17	0.7
	14	13 30 28	127	− 6 38.8	−15.5	57.9	12 1.7	1.95	6 17	3.3	17 33	0.7

Tag	Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite	Alter
0h Weltzeit											
1947	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°	d
Okt. 14	13 5 44	49 23	−3 35.8	5 58.7	58 14.8	37.1	15 53.7	10.1	196.525	+3.142	29.2
15	13 55 7	49 53	−9 34.5	5 24.8	57 37.7	40.7	15 43.6	11.1	210.136	+2.080	0.7
16	14 45 0	50 55	−14 59.3	4 35.9	56 57.0	41.3	15 32.5	11.2	223.417	+0.926	1.7
17	15 35 55	52 12	−19 35.2	3 34.9	56 15.7	38.7	15 21.3	10.6	236.355	−0.248	2.7
18	16 28 7	53 16	−23 10.1	2 25.1	55 37.0	33.5	15 10.7	9.1	248.967	−1.384	3.7
19	17 21 23	53 48	−25 35.2	1 9.9	55 3.5	25.9	15 1.6	7.0	261.293	−2.430	4.7
20	18 15 11	53 30	−26 45.1	0 6.3	54 37.6	16.7	14 54.6	4.6	273.393	−3.348	5.7
21	19 8 41	52 25	−26 38.8	1 19.6	54 20.9	6.5	14 50.0	1.8	285.339	−4.109	6.7
22	20 1 6	50 47	−25 19.2	2 26.8	54 14.4	4.0	14 48.2	1.1	297.209	−4.688	7.7
23	20 51 53	48 57	−22 52.4	3 26.3	54 18.4	14.3	14 49.3	3.9	309.086	−5.067	8.7
24	21 40 50	47 19	−19 26.1	4 16.8	54 32.7	23.6	14 53.2	6.4	321.049	−5.231	9.7
25	22 28 9	46 10	−15 9.3	4 57.9	54 56.3	31.5	14 59.6	8.6	333.172	−5.165	10.7
26	23 14 19	45 42	−10 11.4	5 29.1	55 27.8	37.2	15 8.2	10.2	345.516	−4.861	11.7
27	0 0 1	46 8	−4 42.3	5 48.7	56 5.0	40.3	15 18.4	10.9	358.130	−4.318	12.7
28	0 46 9	47 29	+1 6.4	5 54.8	56 45.3	40.3	15 29.3	11.0	11.041	−3.545	13.7
29	1 33 38	49 52	+7 1.2	5 44.2	57 25.6	37.4	15 40.3	10.2	24.256	−2.566	14.7
30	2 23 30	53 5	+12 45.4	5 13.6	58 3.0	31.8	15 50.5	8.7	37.762	−1.423	15.7
31	3 16 35	56 54	+17 59.0	4 19.9	58 34.8	24.5	15 59.2	6.6	51.525	−0.174	16.7
Nov. 1	4 13 29	60 33	+22 18.9	3 30	58 59.3	16.1	16 5.8	4.5	65.497	+1.105	17.7
2	5 14 2	63 8	+25 21.9	1 26.8	59 15.4	8.0	16 10.3	2.1	79.621	+2.331	18.7
3	6 17 10	63 49	+26 48.7	0 19.4	59 23.4	0.7	16 12.4	0.2	93.838	+3.422	19.7
4	7 20 59	62 20	+26 29.3	2 3.2	59 24.1	5.5	16 12.6	1.5	108.094	+4.305	20.7
5	8 23 19	59 22	+24 26.1	3 33.6	59 18.6	10.3	16 11.1	2.8	122.339	+4.922	21.7
6	9 22 41	55 49	+20 52.5	4 44.1	59 8.3	14.4	16 8.3	3.9	136.532	+5.236	22.7
7	10 18 30	52 34	+16 8.4	5 32.7	58 53.9	17.9	16 4.4	4.9	150.637	+5.234	23.7
8	11 11 4	50 9	+10 35.7	6 0.7	58 36.0	21.3	15 59.5	5.8	164.620	+4.922	24.7
9	12 1 13	48 45	+4 35.0	6 9.3	58 14.7	24.6	15 53.7	6.7	178.452	+4.326	25.7
10	12 49 58	48 23	−1 34.3	6 0.3	57 50.1	27.9	15 47.0	7.6	192.103	+3.491	26.7
11	13 38 21	48 55	−7 34.6	5 34.8	57 22.2	30.5	15 39.4	8.3	205.546	+2.474	27.7
12	14 27 16	50 8	−13 9.4	4 53.8	56 51.7	32.2	15 31.1	8.8	218.760	+1.339	28.7
13	15 17 24	51 42	−18 3.2	3 58.9	56 19.5	32.4	15 22.3	8.8	231.729	+0.155	0.2
14	16 9 6	53 10	−22 2.1	2 52.4	55 47.1	30.6	15 13.5	8.4	244.447	−1.014	1.2
15	17 2 16	54 5	−24 54.5	1 37.9	55 16.5	27.0	15 5.1	7.3	256.925	−2.113	2.2
16	17 56 21	54 6	−26 32.4	0 20.3	54 49.5	21.1	14 57.8	5.8	269.182	−3.094	3.2
17	18 50 27	53 7	−26 52.7	0 55.4	54 28.4	13.7	14 52.0	3.7	281.256	−3.922	4.2
18	19 43 34	51 24	−25 57.3	2 5.1	54 14.7	4.7	14 48.3	1.3	293.197	−4.570	5.2
19	20 34 58	49 20	−23 52.2	3 6.2	54 10.0	5.3	14 47.0	1.5	305.064	−5.017	6.2
20	21 24 18	47 22	−20 46.0	3 58.2	54 15.3	15.8	14 48.5	4.3	316.928	−5.251	7.2
21	22 11 40	45 51	−16 47.8	4 40.7	54 31.1	26.2	14 52.8	7.1	328.865	−5.260	8.2
22	22 57 31	45 4	−12 7.1	5 14.1	54 57.3	35.7	14 59.9	9.7	340.954	−5.040	9.2
23	23 42 35	45 12	−6 53.0	5 38.2	55 33.0	43.5	15 9.6	11.9	353.270	−4.586	10.2
24	0 27 47		−1 14.8		56 16.5		15 21.5		5.883	−3.903	11.2

Tag	Obere Kulmination in Greenwich: AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	0h Länge, + 50° Breite: Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1947	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Okt. 14	13 30 28	127	— 6 38.8	—15.5	57.9	12 1.7	1.95	6 17	3.3	17 33	0.7
15	14 21 39	129	—12 33.1	—13.9	57.3	12 48.8	1.98	7 35	3.2	17 50	0.8
16	15 13 44	132	—17 42.6	—11.7	56.6	13 36.8	2.03	8 53	3.2	18 11	1.0
17	16 7 10	135	—21 52.4	— 9.0	55.9	14 26.2	2.09	10 9	3.1	18 36	1.2
18	17 1 56	138	—24 51.0	— 5.8	55.2	15 16.9	2.13	11 21	2.9	19 8	1.5
19	17 57 33	139	—26 30.6	— 2.4	54.8	16 8.4	2.15	12 27	2.5	19 48	1.9
20	18 53 9	138	—26 48.4	+ 1.0	54.4	16 59.9	2.13	13 22	2.1	20 39	2.3
21	19 47 47	135	—25 46.3	+ 4.2	54.3	17 50.5	2.07	14 6	1.6	21 39	2.6
22	20 40 44	130	—23 30.5	+ 7.1	54.3	18 39.3	2.00	14 40	1.3	22 45	2.8
23	21 31 40	125	—20 9.5	+ 9.6	54.5	19 26.2	1.91	15 7	1.0	23 54	2.9
24	22 20 44	121	—15 53.1	+11.7	54.9	20 11.2	1.84	15 28	0.8	— —	—
25	23 8 25	118	—10 51.7	+13.4	55.4	20 54.8	1.80	15 45	0.7	1 5	3.0
26	23 55 31	118	— 5 15.9	+14.5	56.0	21 37.9	1.79	16 0	0.6	2 17	3.0
27	0 42 57	120	+ 0 42.1	+15.2	56.7	22 21.2	1.83	16 15	0.6	3 29	3.0
28	1 31 50	125	+ 6 48.0	+15.2	57.4	23 6.0	1.91	16 30	0.7	4 43	3.1
29	2 23 15	133	+12 43.9	+14.3	58.0	23 53.4	2.05	16 46	0.8	5 59	3.2
30	— — —	—	— —	—	—	— —	—	17 6	0.9	7 18	3.4
31	3 18 17	143	+18 7.9	+12.5	58.6	0 44.4	2.21	17 31	1.2	8 41	3.5
Nov. 1	4 17 33	154	+22 34.3	+ 9.5	59.0	1 39.5	2.39	18 6	1.7	10 4	3.4
2	5 20 54	163	+25 36.5	+ 5.5	59.3	2 38.8	2.53	18 53	2.3	11 23	3.0
3	6 26 58	167	+26 52.8	+ 0.8	59.4	3 40.7	2.60	19 56	2.9	12 30	2.5
4	7 33 25	164	+26 13.0	— 4.0	59.4	4 43.1	2.57	21 11	3.3	13 22	1.9
5	8 37 47	157	+23 42.7	— 8.3	59.3	5 43.3	2.44	22 34	3.5	14 0	1.4
6	9 38 32	147	+19 39.7	—11.7	59.1	6 40.0	2.28	23 57	3.5	14 28	1.0
7	10 35 20	137	+14 28.0	—14.1	58.8	7 32.7	2.12	— —	—	14 50	0.8
8	11 28 47	130	+ 8 32.1	—15.4	58.5	8 22.0	2.00	1 19	3.4	15 7	0.7
9	12 19 55	126	+ 2 14.2	—15.9	58.1	9 9.1	1.93	2 39	3.3	15 23	0.6
10	13 9 57	125	— 4 5.2	—15.6	57.6	9 55.1	1.91	3 57	3.2	15 38	0.7
11	14 0 1	126	—10 7.7	—14.5	57.1	10 41.1	1.93	5 15	3.2	15 55	0.7
12	14 51 2	129	—15 35.8	—12.7	56.6	11 28.0	1.99	6 32	3.2	16 13	0.9
13	15 43 38	134	—20 13.1	—10.3	56.0	12 16.6	2.06	7 48	3.1	16 36	1.1
14	16 37 59	138	—23 45.1	— 7.3	55.5	13 6.8	2.13	9 3	3.0	17 5	1.4
15	17 33 42	140	—26 0.8	— 4.0	55.0	13 58.4	2.17	10 12	2.7	17 41	1.7
16	18 29 52	140	—26 54.1	— 0.5	54.6	14 50.5	2.16	11 12	2.2	18 28	2.1
17	19 25 22	137	—26 24.7	+ 2.9	54.3	15 41.9	2.11	12 2	1.7	19 25	2.5
18	20 19 11	132	—24 38.2	+ 5.9	54.2	16 31.7	2.03	12 40	1.4	20 29	2.8
19	21 10 47	126	—21 43.4	+ 8.6	54.2	17 19.2	1.93	13 9	1.1	21 37	2.9
20	22 0 8	121	—17 50.9	+10.7	54.4	18 4.5	1.85	13 32	0.9	22 47	2.9
21	22 47 40	117	—13 11.1	+12.5	54.8	18 48.0	1.79	13 50	0.7	23 57	2.9
22	23 34 10	116	— 7 53.9	+13.9	55.4	19 30.4	1.76	14 6	0.6	— —	—
23	0 20 36	117	— 2 9.3	+14.8	56.2	20 12.8	1.78	14 20	0.6	1 8	3.0
24	1 8 7	121	+ 3 51.2	+15.2	57.0	20 56.2	1.85	14 35	0.6	2 20	3.0

Tag		0h Weltzeit										
		Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite	Alter
1947		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°	d
Nov.	24	0 27 47	46 21	− 1 14.8	5 51.1	56 16.5	48.8	15 21.5	13.3	5.883	−3.903	11.2
	25	1 14 8	48 37	+ 4 36.3	5 50.1	57 5.3	50.5	15 34.8	13.7	18.848	−3.004	12.2
	26	2 2 45	51 59	+10 26.4	5 30.8	57 55.8	48.1	15 48.5	13.1	32.199	−1.919	13.2
	27	2 54 44	56 11	+15 57.2	4 48.4	58 43.9	41.3	16 1.6	11.3	45.942	−0.693	14.2
	28	3 50 55	60 40	+20 45.6	3 39.7	59 25.2	30.6	16 12.9	8.3	60.049	+0.606	15.2
	29	4 51 35	64 17	+24 25.3	2 5.8	59 55.8	17.4	16 21.2	4.8	74.457	+1.893	16.2
	30	5 55 52	65 53	+26 31.1	0 15.1	60 13.2	3.4	16 26.0	0.9	89.073	+3.074	17.2
Dez.	1	7 1 45	64 53	+26 46.2	1 37.5	60 16.6	9.7	16 26.9	2.6	103.785	+4.058	18.2
	2	8 6 38	61 43	+25 8.7	3 16.9	60 6.9	20.2	16 24.3	5.5	118.476	+4.774	19.2
	3	9 8 21	57 35	+21 51.8	4 33.8	59 46.7	27.7	16 18.8	7.6	133.041	+5.175	20.2
	4	10 5 56	53 35	+17 18.0	5 25.8	59 19.0	32.1	16 11.2	8.7	147.401	+5.246	21.2
	5	10 59 31	50 27	+11 52.2	5 55.0	58 46.9	33.8	16 2.5	9.2	161.503	+4.998	22.2
	6	11 49 58	48 26	+ 5 57.2	6 4.8	58 13.1	33.9	15 53.3	9.3	175.326	+4.463	23.2
	7	12 38 24	47 36	− 0 7.6	5 58.1	57 39.2	32.8	15 44.0	8.9	188.870	+3.688	24.2
	8	13 26 0	47 49	− 6 5.7	5 36.6	57 6.4	31.3	15 35.1	8.5	202.149	+2.729	25.2
	9	14 13 49	48 54	−11 42.3	5 1.2	56 35.1	29.7	15 26.6	8.1	215.184	+1.644	26.2
	10	15 2 43	50 32	−16 43.5	4 12.4	56 5.4	27.9	15 18.5	7.6	227.999	+0.495	27.2
	11	15 53 15	52 16	−20 55.9	3 11.4	55 37.5	25.8	15 10.9	7.0	240.615	−0.659	28.2
	12	16 45 31	53 39	−24 7.3	2 0.6	55 11.7	23.2	15 3.9	6.4	253.050	−1.764	29.2
	13	17 39 10	54 11	−26 7.9	0 44.2	54 48.5	19.7	14 57.5	5.3	265.320	−2.769	0.5
	14	18 33 21	53 37	−26 52.1	0 32.8	54 28.8	15.2	14 52.2	4.2	277.446	−3.635	1.5
	15	19 26 58	52 4	−26 19.3	1 45.0	54 13.6	9.3	14 48.0	2.5	289.448	−4.330	2.5
	16	20 19 2	49 57	−24 34.3	2 48.7	54 4.3	2.1	14 45.5	0.6	301.357	−4.830	3.5
	17	21 8 59	47 42	−21 45.6	3 42.2	54 2.2	6.4	14 44.9	1.7	313.211	−5.120	4.5
	18	21 56 41	45 45	−18 3.4	4 25.5	54 8.6	15.7	14 46.6	4.3	325.060	−5.191	5.5
	19	22 42 26	44 30	−13 37.9	4 59.1	54 24.3	25.7	14 50.9	7.0	336.965	−5.039	6.5
	20	23 26 56	44 4	− 8 38.8	5 23.8	54 50.0	35.6	14 57.9	9.7	348.995	−4.666	7.5
	21	0 11 0	44 41	− 3 15.0	5 39.0	55 25.6	44.9	15 7.6	12.3	1.228	−4.076	8.5
	22	0 55 41	46 26	+ 2 24.0	5 43.4	56 10.5	52.4	15 19.9	14.2	13.743	−3.281	9.5
	23	1 42 7	49 24	+ 8 7.4	5 33.6	57 2.9	56.9	15 34.1	15.5	26.616	−2.300	10.5
	24	2 31 31	53 32	+13 41.0	5 4.9	57 59.8	57.2	15 49.6	15.6	39.911	−1.166	11.5
	25	3 25 3	58 27	+18 45.9	4 11.4	58 57.0	52.4	16 5.2	14.3	53.666	+0.071	12.5
	26	4 23 30	63 18	+22 57.3	2 50.2	59 49.4	42.1	16 19.5	11.5	67.885	+1.342	13.5
	27	5 26 48	66 42	+25 47.5	1 3.9	60 31.5	26.9	16 31.0	7.3	82.523	+2.559	14.5
	28	6 33 30	67 27	+26 51.4	0 55.1	60 58.4	8.8	16 38.3	2.4	97.481	+3.627	15.5
	29	7 40 57	65 17	+25 56.3	2 48.6	61 7.2	9.9	16 40.7	2.7	112.617	+4.452	16.5
	30	8 46 14	61 13	+23 7.7	4 20.8	60 57.3	26.1	16 38.0	7.1	127.760	+4.965	17.5
	31	9 47 27		+18 46.9		60 31.2		16 30.9		142.746	+5.132	18.5

Tag	Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1947	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Nov. 24	1 8 7	121	+ 3 51.2	+15.2	57.0	20 56.2	1.85	14 35	0.6	2 20	3.0
25	1 57 58	129	+ 9 53.3	+14.9	57.8	21 42.0	1.98	14 50	0.7	3 34	3.2
26	2 51 25	139	+15 37.8	+13.7	58.7	22 31.4	2.15	15 8	0.8	4 52	3.3
27	3 49 31	152	+20 39.4	+11.3	59.4	23 25.4	2.35	15 31	1.1	6 14	3.5
28	— — —	—	— —	—	—	— —	—	16 1	1.5	7 38	3.5
29	4 52 39	164	+24 28.3	+ 76	59.9	0 24.4	2.55	16 44	2.1	9 2	3.3
30	5 59 51	171	+26 35.3	+ 2.8	60.2	1 27.5	2.68	17 42	2.8	10 17	2.8
Dez. 1	7 8 43	172	+26 41.1	− 2.4	60.3	2 32.3	2.68	18 57	3.3	11 17	2.2
2	8 16 7	164	+24 45.1	− 7.2	60.1	3 35.6	2.57	20 20	3.5	12 1	1.5
3	9 19 41	153	+21 4.6	−11.0	59.7	4 35.0	2.38	21 45	3.5	12 33	1.1
4	10 18 32	141	+16 7.1	−13.6	59.2	5 29.8	2.19	23 8	3.4	12 56	0.9
5	11 13 6	132	+10 20.4	−15.1	58.6	6 20.2	2.03	— —	—	13 15	0.7
6	12 4 30	126	+ 4 9.1	−15.7	58.0	7 7.6	1.93	0 28	3.3	13 31	0.7
7	12 54 5	123	− 2 6.7	−15.5	57.5	7 53.1	1.96	1 46	3.2	13 46	0.6
8	13 43 8	123	− 8 10.0	−14.7	56.9	8 38.1	1.88	3 2	3.2	14 2	0.7
9	14 32 48	126	−13 45.1	−13.2	56.4	9 23.7	1.93	4 17	3.1	14 19	0.8
10	15 23 56	130	−18 37.2	−11.1	55.9	10 10.7	2.00	5 32	3.1	14 40	1.0
11	16 16 59	135	−22 31.8	− 8.4	55.4	10 59.7	2.08	6 47	3.0	15 5	1.2
12	17 11 52	139	−25 16.1	− 5.2	55.0	11 50.5	2.15	7 58	2.8	15 38	1.6
13	18 7 51	140	−26 41.0	− 1.8	54.6	12 42.4	2.17	9 2	2.5	16 21	2.0
14	19 3 48	139	−26 42.8	+ 1.6	54.3	13 34.3	2.14	9 56	2.0	17 14	2.4
15	19 58 28	134	−25 24.4	+ 4.8	54.1	14 24.9	2.07	10 38	1.6	18 16	2.7
16	20 50 59	128	−22 54.1	+ 7.6	54.0	15 13.3	1.97	11 10	1.2	19 23	2.8
17	21 40 59	122	−19 22.9	+ 9.9	54.1	15 59.2	1.86	11 35	0.9	20 32	2.9
18	22 28 43	117	−15 2.5	+11.7	54.3	16 42.9	1.78	11 55	0.8	21 41	2.9
19	23 14 48	114	−10 3.7	+13.1	54.7	17 24.9	1.73	12 12	0.6	22 50	2.9
20	0 0 9	113	− 4 36.3	+14.1	55.3	18 6.2	1.72	12 26	0.6	— —	—
21	0 45 53	116	+ 1 9.7	+14.7	56.0	18 47.9	1.77	12 39	0.6	0 0	2.9
22	1 33 16	122	+ 7 3.6	+14.7	56.9	19 31.2	1.86	12 54	0.6	1 11	3.0
23	2 23 39	131	+12 50.8	+14.1	57.8	20 17.5	2.01	13 10	0.7	2 25	3.2
24	3 18 25	143	+18 11.8	+12.5	58.8	21 8.2	2.22	13 29	0.9	3 43	3.3
25	4 18 37	158	+22 39.8	+ 9.6	59.8	22 4.3	2.46	13 55	1.3	5 6	3.5
26	5 24 21	170	+25 42.9	+ 5.4	60.5	23 5.9	2.66	14 31	1.8	6 30	3.4
27	— — —	—	— —	—	—	— —	—	15 22	2.5	7 51	3.1
28	6 34 2	177	+26 51.5	+ 0.2	61.0	0 11.5	2.77	16 32	3.2	9 1	2.6
29	7 44 33	174	+25 50.0	− 5.2	61.1	1 17.9	2.73	17 54	3.6	9 54	1.9
30	8 52 27	164	+22 45.7	− 9.9	60.9	2 21.7	2.57	19 23	3.7	10 32	1.4
31	9 55 37	151	+18 4.9	−13.2	60.4	3 20.8	2.35	20 50	3.6	10 59	1.1

Mond 1947

Phasen des Mondes

1947		Weltzeit h	m		1947		Weltzeit h	m	
Jan.	7	4	47	Vollmond	Juli	11	10	54	Letztes Viertel
	14	2	56	Letztes Viertel		18	4	15	Neumond
	22	8	34	Neumond		24	22	54	Erstes Viertel
	30	0	7	Erstes Viertel	Aug.	2	1	50	Vollmond
Febr.	5	15	50	Vollmond		9	20	22	Letztes Viertel
	12	21	58	Letztes Viertel		16	11	12	Neumond
	21	2	0	Neumond		23	12	40	Erstes Viertel
	28	9	12	Erstes Viertel		31	16	34	Vollmond
März	7	3	15	Vollmond	Sept.	8	3	57	Letztes Viertel
	14	18	28	Letztes Viertel		14	19	28	Neumond
	22	16	34	Neumond		22	5	42	Erstes Viertel
	29	16	15	Erstes Viertel		30	6	41	Vollmond
April	5	15	28	Vollmond	Okt.	7	10	29	Letztes Viertel
	13	14	23	Letztes Viertel		14	6	10	Neumond
	21	4	19	Neumond		22	1	11	Erstes Viertel
	27	22	18	Erstes Viertel		29	20	7	Vollmond
Mai	5	4	53	Vollmond	Nov.	5	17	3	Letztes Viertel
	13	8	8	Letztes Viertel		12	20	1	Neumond
	20	13	44	Neumond		20	21	44	Erstes Viertel
	27	4	35	Erstes Viertel		28	8	45	Vollmond
Juni	3	19	27	Vollmond	Dez.	5	0	55	Letztes Viertel
	11	22	58	Letztes Viertel		12	12	53	Neumond
	18	21	26	Neumond		20	17	43	Erstes Viertel
	25	12	25	Erstes Viertel		27	20	27	Vollmond
Juli	3	10	38	Vollmond		34	11	13	Letztes Viertel

Mond in Erdnähe

1947		Weltzeit h
Jan.	6	14
Febr.	3	23
März	3	20
März	29	13
April	24	11
Mai	22	7
Juni	19	14
Juli	17	23
Aug.	15	8
Sept.	12	11
Okt.	9	18
Nov.	3	14
Nov.	30	18
Dez.	28	23

Mond in Erdferne

1947		Weltzeit h
Jan.	19	5
Febr.	15	21
März	15	17
April	12	13
Mai	10	7
Juni	6	21
Juli	4	3
Juli	31	6
Aug.	27	16
Sept.	24	7
Okt.	22	3
Nov.	18	23
Dez.	16	18

Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Jan. 0	17 39 36.21	6 35.45	−23 41 31.6	9 34.1	1.355 113	8 658	11 5.6
1	17 46 11.66	6 38.04	23 51 5.7	8 22.9	1.363 771	8 093	11 8.2
2	17 52 49.70	6 40.49	23 59 28.6	7 10.3	1.371 864	7 536	11 10.9
3	17 59 30.19	6 42.80	24 6 38.9	5 56.3	1.379 400	6 986	11 13.7
4	18 6 12.99	6 44.98	24 12 35.2	4 40.6	1.386 386	6 443	11 16.5
5	18 12 57.97	6 47.03	24 17 15.8	3 23.8	1.392 829	5 904	11 19.3
6	18 19 45.00	6 48.98	−24 20 39.6	2 5.7	1.398 733	5 369	11 22.2
7	18 26 33.98	6 50.80	24 22 45.3	0 46.2	1.404 102	4 837	11 25.1
8	18 33 24.78	6 52.51	24 23 31.5	0 34.3	1.408 939	4 307	11 28.0
9	18 40 17.29	6 54.12	24 22 57.2	1 56.0	1.413 246	3 778	11 31.0
10	18 47 11.41	6 55.62	24 21 1.2	3 18.7	1.417 024	3 248	11 33.9
11	18 54 7.03	6 56.99	24 17 42.5	4 42.4	1.420 272	2 717	11 36.9
12	19 1 4.02	6 58.28	−24 13 0.1	6 7.1	1.422 989	2 184	11 40.0
13	19 8 2.30	6 59.44	24 6 53.0	7 32.8	1.425 173	1 647	11 43.0
14	19 15 1.74	7 0.51	23 59 20.2	8 59.3	1.426 820	1 104	11 46.1
15	19 22 2.25	7 1.47	23 50 20.9	10 26.7	1.427 924	557	11 49.1
16	19 29 3.72	7 2.31	23 39 54.2	11 54.8	1.428 481	1	11 52.2
17	19 36 6.03	7 3.05	23 27 59.4	13 23.7	1.428 482	564	11 55.3
18	19 43 9.08	7 3.68	−23 14 35.7	14 53.4	1.427 918	1 138	11 58.5
19	19 50 12.76	7 4.21	22 59 42.3	16 23.5	1.426 780	1 723	12 1.6
20	19 57 16.97	7 4.62	22 43 18.8	17 54.3	1.425 057	2 323	12 4.7
21	20 4 21.59	7 4.92	22 25 24.5	19 25.6	1.422 734	2 935	12 7.9
22	20 11 26.51	7 5.09	22 5 58.9	20 57.3	1.419 799	3 566	12 11.0
23	20 18 31.60	7 5.16	21 45 1.6	22 29.3	1.416 233	4 215	12 14.2
24	20 25 36.76	7 5.08	−21 22 32.3	24 1.7	1.412 018	4 881	12 17.3
25	20 32 41.84	7 4.88	20 58 30.6	25 34.0	1.407 137	5 571	12 20.5
26	20 39 46.72	7 4.51	20 32 56.6	27 6.5	1.401 566	6 283	12 23.6
27	20 46 51.23	7 3.99	20 5 50.1	28 38.6	1.395 283	7 021	12 26.7
28	20 53 55.22	7 3.30	19 37 11.5	30 10.5	1.388 262	7 786	12 29.9
29	21 0 58.52	7 2.40	19 7 1.0	31 41.7	1.380 476	8 579	12 33.0
30	21 8 0.92	7 1.28	−18 35 19.3	33 12.1	1.371 897	9 402	12 36.1
31	21 15 2.20	6 59.90	18 2 7.2	34 41.4	1.362 495	10 257	12 39.2
Febr. 1	21 22 2.10	6 58.24	17 27 25.8	36 8.9	1.352 238	11 144	12 42.2
2	21 29 0.34	6 56.25	16 51 16.9	37 34.7	1.341 094	12 065	12 45.2
3	21 35 56.59	6 53.85	16 13 42.2	38 57.8	1.329 029	13 020	12 48.2
4	21 42 50.44	6 51.02	15 34 44.4	40 18.0	1.316 009	14 008	12 51.1
5	21 49 41.46	6 47.65	−14 54 26.4	41 34.1	1.302 001	15 027	12 54.0
6	21 56 29.11	6 43.69	14 12 52.3	42 45.7	1.286 974	16 077	12 56.9
7	22 3 12.80	6 39.02	13 30 6.6	43 51.7	1.270 897	17 151	12 59.6
8	22 9 51.82	6 33.52	12 46 14.9	44 50.9	1.253 746	18 246	13 2.3
9	22 16 25.34	6 27.10	12 1 24.0	45 42.3	1.235 500	19 355	13 4.8
10	22 22 52.44		−11 15 41.7		1.216 145		13 7.3

Tag	Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Febr. 10	22 22 52.44	6 19.60	−11 15 41.7	46 24.2	1.216 145	20 466	13 7.3
11	22 29 12.04	6 10.86	10 29 17.5	46 55.4	1.195 679	21 570	13 9.6
12	22 35 22.90	6 0.75	9 42 22.1	47 14.0	1.174 109	22 651	13 11.8
13	22 41 23.65	5 49.11	8 55 8.1	47 18.6	1.151 458	23 693	13 13.7
14	22 47 12.76	5 35.76	8 7 49.5	47 7.3	1.127 765	24 678	13 15.5
15	22 52 48.52	5 20.55	7 20 42.2	46 38.1	1.103 087	25 583	13 17.0
16	22 58 9.07	5 3.37	− 6 34 4.1	45 49.8	1.077 504	26 389	13 18.2
17	23 3 12.44	4 44.08	5 48 14.3	44 40.5	1.051 115	27 070	13 19.2
18	23 7 56.52	4 22.62	5 3 33.8	43 9.2	1.024 045	27 604	13 19.8
19	23 12 19.14	3 58.97	4 20 24.6	41 14.7	0.996 441	27 974	13 20.0
20	23 16 18.11	3 33.14	3 39 9.9	38 56.5	0.968 467	28 155	13 19.8
21	23 19 51.25	3 5.21	3 0 13.4	36 14.3	0.940 312	28 138	13 19.1
22	23 22 56.46	2 35.37	− 2 23 59.1	33 8.6	0.912 174	27 908	13 18.0
23	23 25 31.83	2 3.83	1 50 50.5	29 40.0	0.884 266	27 460	13 16.4
24	23 27 35.66	1 30.92	1 21 10.5	25 49.9	0.856 806	26 794	13 14.2
25	23 29 6.58	0 57.01	0 55 20.6	21 40.5	0.830 012	25 910	13 11.5
26	23 30 3.59	0 22.60	0 33 40.1	17 14.1	0.804 102	24 819	13 8.2
27	23 30 26.19	0 11.75	0 16 26.0	12 34.1	0.779 283	23 533	13 4.3
28	23 30 14.44	0 45.45	− 0 3 51.9	7 44.5	0.755 750	22 067	12 59.9
März 1	23 29 28.99	1 17.79	+ 0 3 52.6	2 50.0	0.733 683	20 441	12 54.9
2	23 28 11.20	1 48.11	0 6 42.6	2 4.2	0.713 242	18 675	12 49.4
3	23 26 23.09	2 15.68	+ 0 4 38.4	6 52.1	0.694 567	16 795	12 43.4
4	23 24 7.41	2 39.82	− 0 2 13.7	11 27.4	0.677 772	14 828	12 37.0
5	23 21 27.59	2 59.94	0 13 41.1	15 44.0	0.662 944	12 800	12 30.3
6	23 18 27.65	3 15.55	− 0 29 25.1	19 35.8	0.650 144	10 739	12 23.2
7	23 15 12.10	3 26.32	0 49 0.9	22 57.2	0.639 405	8 673	12 16.0
8	23 11 45.78	3 32.11	1 11 58.1	25 44.4	0.630 732	6 630	12 8.6
9	23 8 13.67	3 32.89	1 37 42.5	27 54.3	0.624 102	4 634	12 1.1
10	23 4 40.78	3 28.91	2 5 36.8	29 25.4	0.619 468	2 708	11 53.7
11	23 1 11.87	3 20.51	2 35 2.2	30 18.3	0.616 760	871	11 46.4
12	22 57 51.36	3 8.20	− 3 5 20.5	30 34.5	0.615 889	861	11 39.2
13	22 54 43.16	2 52.53	3 35 55.0	30 16.6	0.616 750	2 478	11 32.3
14	22 51 50.63	2 34.15	4 6 11.6	29 28.8	0.619 228	3 973	11 25.6
15	22 49 16.48	2 13.67	4 35 40.4	28 15.0	0.623 201	5 342	11 19.3
16	22 47 2.81	1 51.69	5 3 55.4	26 39.8	0.628 543	6 584	11 13.3
17	22 45 11.12	1 28.76	5 30 35.2	24 47.4	0.635 127	7 703	11 7.7
18	22 43 42.36	1 5.38	− 5 55 22.6	22 41.9	0.642 830	8 703	11 2.5
19	22 42 36.98	0 41.93	6 18 4.5	20 27.0	0.651 533	9 592	10 57.7
20	22 41 55.05	0 18.78	6 38 31.5	18 5.7	0.661 125	10 375	10 53.2
21	22 41 36.27	0 3.84	6 56 37.2	15 40.8	0.671 500	11 062	10 49.1
22	22 41 40.11	0 25.71	7 12 18.0	13 14.0	0.682 562	11 661	10 45.4
23	22 42 5.82		− 7 25 32.0		0.694 223		10 42.1

(Columns grouped under: 0ʰ Weltzeit)

Tag	0h Weltzeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		Δ		
1947	h m s	m s	° ′ ″	′ ″			h m
März 23	22 42 5.82	0 46.69	−7 25 32.0	10 47.5	0.694 223	12 179	10 42.1
24	22 42 52.51	1 6.71	7 36 19.5	8 22.3	0.706 402	12 626	10 39.1
25	22 43 59.22	1 25.69	7 44 41.8	5 59.2	0.719 028	13 010	10 36.4
26	22 45 24.91	1 43.64	7 50 41.0	3 39.3	0.732 038	13 335	10 34.0
27	22 47 8.55	2 0.53	7 54 20.3	1 22.7	0.745 373	13 612	10 31.9
28	22 49 9.08	2 16.41	7 55 43.0	0 50.1	0.758 985	13 842	10 30.1
29	22 51 25.49	2 31.30	−7 54 52.9	2 59.2	0.772 827	14 035	10 28.6
30	22 53 56.79	2 45.26	7 51 53.7	5 4.2	0.786 862	14 194	10 27.2
31	22 56 42.05	2 58.34	7 46 49.5	7 5.4	0.801 056	14 322	10 26.1
April 1	22 59 40.39	3 10.58	7 39 44.1	9 2.7	0.815 378	14 425	10 25.3
2	23 2 50.97	3 22.06	7 30 41.4	10 56.4	0.829 803	14 505	10 24.6
3	23 6 13.03	3 32.81	7 19 45.0	12 46.3	0.844 308	14 565	10 24.1
4	23 9 45.84	3 42.91	−7 6 58.7	14 32.8	0.858 873	14 607	10 23.8
5	23 13 28.75	3 52.41	6 52 25.9	16 16.0	0.873 480	14 635	10 23.6
6	23 17 21.16	4 1.37	6 36 9.9	17 55.9	0.888 115	14 649	10 23.6
7	23 21 22.53	4 9.81	6 18 14.0	19 33.0	0.902 764	14 651	10 23.8
8	23 25 32.34	4 17.83	5 58 41.0	21 6.9	0.917 415	14 643	10 24.0
9	23 29 50.17	4 25.44	5 37 34.1	22 38.1	0.932 058	14 625	10 24.4
10	23 34 15.61	4 32.70	−5 14 56.0	24 6.6	0.946 683	14 598	10 25.0
11	23 38 48.31	4 39.64	4 50 49.4	25 32.5	0.961 281	14 563	10 25.6
12	23 43 27.95	4 46.32	4 25 16.9	26 56.1	0.975 844	14 521	10 26.4
13	23 48 14.27	4 52.77	3 58 20.8	28 17.1	0.990 365	14 470	10 27.3
14	23 53 7.04	4 59.02	3 30 3.7	29 36.0	1.004 835	14 413	10 28.3
15	23 58 6.06	5 5.13	3 0 27.7	30 52.5	1.019 248	14 348	10 29.4
16	0 3 11.19	5 11.12	−2 29 35.2	32 7.0	1.033 596	14 274	10 30.5
17	0 8 22.31	5 17.01	1 57 28.2	33 19.2	1.047 870	14 192	10 31.8
18	0 13 39.32	5 22.85	1 24 9.0	34 29.5	1.062 062	14 099	10 33.2
19	0 19 2.17	5 28.68	0 49 39.5	35 37.5	1.076 161	13 997	10 34.7
20	0 24 30.85	5 34.49	−0 14 2.0	36 43.6	1.090 158	13 881	10 36.3
21	0 30 5.34	5 40.35	+0 22 41.6	37 47.5	1.104 039	13 754	10 37.9
22	0 35 45.69	5 46.27	+1 0 29.1	38 49.3	1.117 793	13 611	10 39.7
23	0 41 31.96	5 52.28	1 39 18.4	39 48.9	1.131 404	13 450	10 41.6
24	0 47 24.24	5 58.41	2 19 7.3	40 46.4	1.144 854	13 271	10 43.6
25	0 53 22.65	6 4.67	2 59 53.7	41 41.4	1.158 125	13 069	10 45.7
26	0 59 27.32	6 11.09	3 41 35.1	42 34.0	1.171 194	12 843	10 47.8
27	1 5 38.41	6 17.72	4 24 9.1	43 23.9	1.184 037	12 588	10 50.1
28	1 11 56.13	6 24.53	+5 7 33.0	44 11.1	1.196 625	12 302	10 52.5
29	1 18 20.66	6 31.58	5 51 44.1	44 55.1	1.208 927	11 981	10 55.1
30	1 24 52.24	6 38.87	6 36 39.2	45 35.9	1.220 908	11 619	10 57.7
Mai 1	1 31 31.11	6 46.39	7 22 15.1	46 12.9	1.232 527	11 213	11 0.5
2	1 38 17.50	6 54.17	8 8 28.0	46 45.9	1.243 740	10 756	11 3.4
3	1 45 11.67		+8 55 13.9		1.254 496		11 6.4

Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Mai 3	1 45 11.67	7 2.20	+ 8 55 13.9	47 14.3	1.254 496	10 247	11 6.4
4	1 52 13.87	7 10.48	9 42 28.2	47 37.7	1.264 743	9 677	11 9.6
5	1 59 24.35	7 18.97	10 30 5.9	47 55.4	1.274 420	9 043	11 12.9
6	2 6 43.32	7 27.66	11 18 1.3	48 6.8	1.283 463	8 339	11 16.3
7	2 14 10.98	7 36.52	12 6 8.1	48 11.3	1.291 802	7 560	11 19.9
8	2 21 47.50	7 45.47	12 54 19.4	48 7.9	1.299 362	6 705	11 23.7
9	2 29 32.97	7 54.46	+13 42 27.3	47 56.0	1.306 067	5 768	11 27.6
10	2 37 27.43	8 3.42	14 30 23.3	47 34.7	1.311 835	4 751	11 31.6
11	2 45 30.85	8 12.21	15 17 58.0	47 3.1	1.316 586	3 652	11 35.8
12	2 53 43.06	8 20.75	16 5 1.1	46 20.8	1.320 238	2 476	11 40.2
13	3 2 3.81	8 28.90	16 51 21.9	45 26.9	1.322 714	1 225	11 44.7
14	3 10 32.71	8 36.53	17 36 48.8	44 20.8	1.323 939	89	11 49.3
15	3 19 9.24	8 43.46	+18 21 9.6	43 2.3	1.323 850	1 458	11 54.0
16	3 27 52.70	8 49.58	19 4 11.9	41 31.6	1.322 392	2 866	11 58.9
17	3 36 42.28	8 54.74	19 45 43.5	39 48.5	1.319 526	4 300	12 3.8
18	3 45 37.02	8 58.79	20 25 32.0	37 53.8	1.315 226	5 740	12 8.8
19	3 54 35.81	9 1.64	21 3 25.8	35 48.3	1.309 486	7 168	12 13.9
20	4 3 37.45	9 3.21	21 39 14.1	33 33.0	1.302 318	8 564	12 19.0
21	4 12 40.66	9 3.42	+22 12 47.1	31 9.3	1.293 754	9 911	12 24.1
22	4 21 44.08	9 2.27	22 43 56.4	28 38.9	1.283 843	11 192	12 29.3
23	4 30 46.35	8 59.77	23 12 35.3	26 3.2	1.272 651	12 394	12 34.4
24	4 39 46.12	8 55.93	23 38 38.5	23 24.1	1.260 257	13 504	12 39.4
25	4 48 42.05	8 50.85	24 2 2.6	20 43.2	1.246 753	14 516	12 44.4
26	4 57 32.90	8 44.57	24 22 45.8	18 2.1	1.232 237	15 423	12 49.2
27	5 6 17.47	8 37.20	+24 40 47.9	15 22.1	1.216 814	16 224	12 54.0
28	5 14 54.67	8 28.85	24 56 10.0	12 44.8	1.200 590	16 921	12 58.6
29	5 23 23.52	8 19.60	25 8 54.8	10 11.1	1.183 669	17 516	13 3.1
30	5 31 43.12	8 9.55	25 19 5.9	7 41.8	1.166 153	18 014	13 7.4
31	5 39 52.67	7 58.80	25 26 47.7	5 17.9	1.148 139	18 419	13 11.5
Juni 1	5 47 51.47	7 47.46	25 32 5.6	2 59.8	1.129 720	18 740	13 15.5
2	5 55 38.93	7 35.58	+25 35 5.4	0 47.9	1.110 980	18 981	13 19.2
3	6 3 14.51	7 23.23	25 35 53.3	1 17.4	1.091 999	19 152	13 22.8
4	6 10 37.74	7 10.48	25 34 35.9	3 15.9	1.072 847	19 259	13 26.1
5	6 17 48.22	6 57.38	25 31 20.0	5 7.5	1.053 588	19 306	13 29.2
6	6 24 45.60	6 43.96	25 26 12.5	6 52.1	1.034 282	19 303	13 32.1
7	6 31 29.56	6 30.26	25 19 20.4	8 29.8	1.014 979	19 252	13 34.8
8	6 37 59.82	6 16.29	+25 10 50.6	10 0.6	0.995 727	19 160	13 37.2
9	6 44 16.11	6 2.09	25 0 50.0	11 24.5	0.976 567	19 032	13 39.4
10	6 50 18.20	5 47.67	24 49 25.5	12 41.8	0.957 535	18 870	13 41.4
11	6 56 5.87	5 33.01	24 36 43.7	13 52.2	0.938 665	18 678	13 43.1
12	7 1 38.88	5 18.13	24 22 51.5	14 56.2	0.919 987	18 459	13 44.6
13	7 6 57.01		+24 7 55.3		0.901 528		13 45.8

Tag	0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Juni 13	7 6 57.01	5 3.03	+24 7 55.3	15 53.6	0.901 528	18 216	13 45.8
14	7 12 0.04	4 47.69	23 52 1.7	16 44.5	0.883 312	17 951	13 46.7
15	7 16 47.73	4 32.11	23 35 17.2	17 29.2	0.865 361	17 662	13 47.4
16	7 21 19.84	4 16.27	23 17 48.0	18 7.6	0.847 699	17 356	13 47.9
17	7 25 36.11	4 0.15	22 59 40.4	18 39.8	0.830 343	17 028	13 48.1
18	7 29 36.26	3 43.75	22 41 0.6	19 5.6	0.813 315	16 682	13 48.0
19	7 33 20.01	3 27.06	+22 21 55.0	19 25.4	0.796 633	16 315	13 47.6
20	7 36 47.07	3 10.03	22 2 29.6	19 39.0	0.780 318	15 929	13 46.9
21	7 39 57.10	2 52.70	21 42 50.6	19 46.5	0.764 389	15 522	13 46.0
22	7 42 49.80	2 35.04	21 23 4.1	19 47.8	0.748 867	15 092	13 44.7
23	7 45 24.84	2 17.05	21 3 16.3	19 42.8	0.733 775	14 640	13 43.2
24	7 47 41.89	1 58.74	20 43 33.5	19 31.7	0.719 135	14 162	13 41.4
25	7 49 40.63	1 40.15	+20 24 1.8	19 14.4	0.704 973	13 658	13 39.2
26	7 51 20.78	1 21.28	20 4 47.4	18 50.9	0.691 315	13 125	13 36.8
27	7 52 42.06	1 2.19	19 45 56.5	18 21.2	0.678 190	12 563	13 34.1
28	7 53 44.25	0 42.94	19 27 35.3	17 45.3	0.665 627	11 966	13 31.0
29	7 54 27.19	0 23.61	19 9 50.0	17 3.4	0.653 661	11 336	13 27.6
30	7 54 50.80	0 4.27	18 52 46.6	16 15.4	0.642 325	10 668	13 23.9
Juli 1	7 54 55.07	0 14.93	+18 36 31.2	15 21.7	0.631 657	9 961	13 19.8
2	7 54 40.14	0 33.86	18 21 9.5	14 22.2	0.621 696	9 213	13 15.5
3	7 54 6.28	0 52.36	18 6 47.3	13 17.3	0.612 483	8 422	13 10.8
4	7 53 13.92	1 10.23	17 53 30.0	12 7.6	0.604 061	7 587	13 5.8
5	7 52 3.69	1 27.28	17 41 22.4	10 53.0	0.596 474	6 706	13 0.6
6	7 50 36.41	1 43.26	17 30 29.4	9 34.3	0.589 768	5 779	12 55.1
7	7 48 53.15	1 57.91	+17 20 55.1	8 12.2	0.583 989	4 807	12 49.3
8	7 46 55.24	2 11.03	17 12 42.9	6 47.0	0.579 182	3 788	12 43.3
9	7 44 44.21	2 22.32	17 5 55.9	5 19.7	0.575 394	2 726	12 37.1
10	7 42 21.89	2 31.56	17 0 36.2	3 51.0	0.572 668	1 623	12 30.7
11	7 39 50.33	2 38.55	16 56 45.2	2 21.8	0.571 045	481	12 24.2
12	7 37 11.78	2 43.05	16 54 23.4	0 52.8	0.570 564	696	12 17.6
13	7 34 28.73	2 44.95	+16 53 30.6	0 34.8	0.571 260	1 903	12 11.0
14	7 31 43.78	2 44.15	16 54 5.4	2 0.5	0.573 163	3 136	12 4.3
15	7 28 59.63	2 40.58	16 56 5.9	3 23.1	0.576 299	4 388	11 57.7
16	7 26 19.05	2 34.27	16 59 29.0	4 41.9	0.580 687	5 655	11 51.1
17	7 23 44.78	2 25.25	17 4 10.9	5 56.4	0.586 342	6 930	11 44.7
18	7 21 19.53	2 13.66	17 10 7.3	7 5.5	0.593 272	8 207	11 38.5
19	7 19 5.87	1 59.65	+17 17 12.8	8 8.7	0.601 479	9 481	11 32.4
20	7 17 6.22	1 43.38	17 25 21.5	9 5.7	0.610 960	10 746	11 26.6
21	7 15 22.84	1 25.10	17 34 27.2	9 55.6	0.621 706	11 996	11 21.1
22	7 13 57.74	1 5.02	17 44 22.8	10 38.1	0.633 702	13 226	11 15.9
23	7 12 52.72	0 43.39	17 55 0.9	11 12.7	0.646 928	14 433	11 11.1
24	7 12 9.33		+18 6 13.6		0.661 361		11 6.6

Tag	0ʰ Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Juli 24	7 12 9.33	0 20.44	+18 6 13.6	11 39.2	0.661 361	15 609	11 6.6
25	7 11 48.89	0 3.60	18 17 52.8	11 57.1	0.676 970	16 752	11 2.5
26	7 11 52.49	0 28.50	18 29 49.9	12 6.0	0.693 722	17 856	10 58.8
27	7 12 20.99	0 54.08	18 41 55.9	12 5.7	0.711 578	18 916	10 55.6
28	7 13 15.07	1 20.12	18 54 1.6	11 55.9	0.730 494	19 930	10 52.7
29	7 14 35.19	1 46.47	19 5 57.5	11 36.1	0.750 424	20 890	10 50.3
30	7 16 21.66	2 12.96	+19 17 33.6	11 6.2	0.771 314	21 791	10 48.4
31	7 18 34.62	2 39.45	19 28 39.8	10 26.0	0.793 105	22 626	10 46.9
Aug. 1	7 21 14.07	3 5.81	19 39 5.8	9 34.8	0.815 731	23 390	10 45.8
2	7 24 19.88	3 31.88	19 48 40.6	8 32.9	0.839 121	24 073	10 45.1
3	7 27 51.76	3 57.57	19 57 13.5	7 19.7	0.863 194	24 670	10 44.9
4	7 31 49.33	4 22.73	20 4 33.2	5 55.5	0.887 864	25 170	10 45.1
5	7 36 12.06	4 47.21	+20 10 28.7	4 20.1	0.913 034	25 563	10 45.7
6	7 40 59.27	5 10.87	20 14 48.8	2 33.6	0.938 597	25 842	10 46.7
7	7 46 10.14	5 33.58	20 17 22.4	0 36.6	0.964 439	25 995	10 48.1
8	7 51 43.72	5 55.16	20 17 59.0	1 30.5	0.990 434	26 016	10 49.9
9	7 57 38.88	6 15.43	20 16 28.5	3 47.1	1.016 450	25 897	10 52.1
10	8 3 54.31	6 34.26	20 12 41.4	6 11.9	1.042 347	25 634	10 54.5
11	8 10 28.57	6 51.48	+20 6 29.5	8 43.6	1.067 981	25 222	10 57.3
12	8 17 20.05	7 6.93	19 57 45.9	11 20.8	1.093 203	24 664	11 0.3
13	8 24 26.98	7 20.51	19 46 25.1	14 1.7	1.117 867	23 963	11 3.6
14	8 31 47.49	7 32.14	19 32 23.4	16 44.2	1.141 830	23 129	11 7.1
15	8 39 19.63	7 41.75	19 15 39.2	19 26.7	1.164 959	22 171	11 10.8
16	8 47 1.38	7 49.34	18 56 12.5	22 7.0	1.187 130	21 104	11 14.6
17	8 54 50.72	7 54.97	+18 34 5.5	24 43.1	1.208 234	19 947	11 18.6
18	9 2 45.69	7 58.68	18 9 22.4	27 13.4	1.228 181	18 718	11 22.6
19	9 10 44.37	8 0.62	17 42 9.0	29 36.4	1.246 899	17 435	11 26.7
20	9 18 44.99	8 0.93	17 12 32.6	31 51.0	1.264 334	16 120	11 30.8
21	9 26 45.92	7 59.79	16 40 41.6	33 56.2	1.280 454	14 790	11 34.8
22	9 34 45.71	7 57.37	16 6 45.4	35 51.3	1.295 244	13 461	11 38.9
23	9 42 43.08	7 53.86	+15 30 54.1	37 36.2	1.308 705	12 150	11 42.9
24	9 50 36.94	7 49.44	14 53 17.9	39 10.7	1.320 855	10 867	11 46.8
25	9 58 26.38	7 44.32	14 14 7.2	40 35.0	1.331 722	9 622	11 50.7
26	10 6 10.70	7 38.63	13 33 32.2	41 49.3	1.341 344	8 421	11 54.4
27	10 13 49.33	7 32.51	12 51 42.9	42 54.2	1.349 765	7 271	11 58.1
28	10 21 21.84	7 26.12	12 8 48.7	43 50.2	1.357 036	6 175	12 1.6
29	10 28 47.96	7 19.54	+11 24 58.5	44 37.9	1.363 211	5 132	12 5.1
30	10 36 7.50	7 12.88	10 40 20.6	45 17.7	1.368 343	4 144	12 8.4
31	10 43 20.38	7 6.21	9 55 2.9	45 50.4	1.372 487	3 209	12 11.6
Sept. 1	10 50 26.59	6 59.61	9 9 12.5	46 16.7	1.375 696	2 327	12 14.8
2	10 57 26.20	6 53.12	8 22 55.8	46 36.9	1.378 023	1 494	12 17.8
3	11 4 19.32		+ 7 36 18.9		1.379 517		12 20.6

Tag	0ʰ Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Sept. 3	11 4 19.32	6 46.76	+ 7 36 18.9	46 51.7	1.379 517	708	12 20.6
4	11 11 6.08	6 40.60	6 49 27.2	47 1.4	1.380 225	36	12 23.4
5	11 17 46.68	6 34.62	6 2 25.8	47 6.8	1.380 189	738	12 26.1
6	11 24 21.30	6 28.87	5 15 19.0	47 8.0	1.379 451	1 403	12 28.7
7	11 30 50.17	6 23.34	4 28 11.0	47 5.6	1.378 048	2 033	12 31.2
8	11 37 13.51	6 18.04	3 41 5.4	46 59.7	1.376 015	2 634	12 33.6
9	11 43 31.55	6 12.96	+ 2 54 5.7	46 50.7	1.373 381	3 205	12 35.9
10	11 49 44.51	6 8.12	2 7 15.0	46 38.9	1.370 176	3 752	12 38.2
11	11 55 52.63	6 3.49	1 20 36.1	46 24.5	1.366 424	4 275	12 40.3
12	12 1 56.12	5 59.09	+ 0 34 11.6	46 7.7	1.362 149	4 778	12 42.4
13	12 7 55.21	5 54.88	— 0 11 56.1	45 48.7	1.357 371	5 264	12 44.4
14	12 13 50.09	5 50.88	0 57 44.8	45 27.6	1.352 107	5 732	12 46.3
15	12 19 40.97	5 47.06	— 1 43 12.4	45 4.6	1.346 375	6 187	12 48.2
16	12 25 28.03	5 43.42	2 28 17.0	44 39.7	1.340 188	6 630	12 50.0
17	12 31 11.45	5 39.94	3 12 56.7	44 13.0	1.333 558	7 062	12 51.8
18	12 36 51.39	5 36.60	3 57 9.7	43 44.7	1.326 496	7 484	12 53.5
19	12 42 27.99	5 33.40	4 40 54.4	43 14.9	1.319 012	7 898	12 55.1
20	12 48 1.39	5 30.33	5 24 9.3	42 43.4	1.311 114	8 306	12 56.7
21	12 53 31.72	5 27.36	— 6 6 52.7	42 10.4	1.302 808	8 709	12 58.2
22	12 58 59.08	5 24.48	6 49 3.1	41 36.0	1.294 099	9 107	12 59.7
23	13 4 23.56	5 21.67	7 30 39.1	41 0.1	1.284 992	9 501	13 1.2
24	13 9 45.23	5 18.92	8 11 39.2	40 22.7	1.275 491	9 894	13 2.6
25	13 15 4.15	5 16.20	8 52 1.9	39 43.7	1.265 597	10 284	13 3.9
26	13 20 20.35	5 13.50	9 31 45.6	39 3.4	1.255 313	10 673	13 5.2
27	13 25 33.85	5 10.78	—10 10 49.0	38 21.4	1.244 640	11 062	13 6.5
28	13 30 44.63	5 8.04	10 49 10.4	37 38.0	1.233 578	11 452	13 7.7
29	13 35 52.67	5 5.24	11 26 48.4	36 52.7	1.222 126	11 841	13 8.9
30	13 40 57.91	5 2.34	12 3 41.1	36 5.7	1.210 285	12 231	13 10.0
Okt. 1	13 46 0.25	4 59.33	12 39 46.8	35 17.1	1.198 054	12 622	13 11.1
2	13 50 59.58	4 56.16	13 15 3.9	34 26.5	1.185 432	13 014	13 12.1
3	13 55 55.74	4 52.81	—13 49 30.4	33 33.8	1.172 418	13 408	13 13.0
4	14 0 48.55	4 49.21	14 23 4.2	32 39.1	1.159 010	13 802	13 13.9
5	14 5 37.76	4 45.34	14 55 43.3	31 42.0	1.145 208	14 197	13 14.8
6	14 10 23.10	4 41.13	15 27 25.3	30 42.5	1.131 011	14 592	13 15.6
7	14 15 4.23	4 36.53	15 58 7.8	29 40.3	1.116 419	14 986	13 16.3
8	14 19 40.76	4 31.48	16 27 48.1	28 35.4	1.101 433	15 378	13 16.9
9	14 24 12.24	4 25.90	—16 56 23.5	27 27.1	1.086 055	15 767	13 17.4
10	14 28 38.14	4 19.71	17 23 50.6	26 15.6	1.070 288	16 152	13 17.8
11	14 32 57.85	4 12.81	17 50 6.2	25 0.2	1.054 136	16 529	13 18.2
12	14 37 10.66	4 5.14	18 15 6.4	23 40.7	1.037 607	16 896	13 18.4
13	14 41 15.80	3 56.55	18 38 47.1	22 16.7	1.020 711	17 251	13 18.4
14	14 45 12.35		—19 1 3.8		1.003 460		13 18.3

Tag	0ʰ Weltzeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		Δ		
1947	h m s	m s	° ′ ″	′ ″			h m
Okt. 14	14 45 12.35	3 46.95	—19 1 3.8	20 47.7	1.003 460	17 589	13 18.3
15	14 48 59.30	3 36.20	19 21 51.5	19 13.1	0.985 871	17 905	13 18.1
16	14 52 35.50	3 24.16	19 41 4.6	17 32.3	0.967 966	18 194	13 17.6
17	14 55 59.66	3 10.68	19 58 36.9	15 44.7	0.949 772	18 450	13 17.0
18	14 59 10.34	2 55.61	20 14 21.6	13 49.2	0.931 322	18 663	13 16.1
19	15 2 5.95	2 38.78	20 28 10.8	11 45.4	0.912 659	18 825	13 14.9
20	15 4 44.73	2 20.04	—20 39 56.2	9 31.8	0.893 834	18 926	13 13.5
21	15 7 4.77	1 59.23	20 49 28.0	7 7.9	0.874 908	18 953	13 11.7
22	15 9 4.00	1 36.23	20 56 35.9	4 32.1	0.855 955	18 890	13 9.5
23	15 10 40.23	1 10.93	21 1 8.0	1 43.6	0.837 065	18 722	13 6.9
24	15 11 51.16	0 43.27	21 2 51.6	1 18.9	0.818 343	18 429	13 3.9
25	15 12 34.43	0 13.32	21 1 32.7	4 35.9	0.799 914	17 992	13 0.5
26	15 12 47.75	0 18.78	—20 56 56.8	8 8.2	0.781 922	17 387	12 56.5
27	15 12 28.97	0 52.72	20 48 48.6	11 55.3	0.764 535	16 591	12 51.9
28	15 11 36.25	1 28.03	20 36 53.3	15 55.9	0.747 944	15 579	12 46.8
29	15 10 8.22	2 3.93	20 20 57.4	20 7.6	0.732 365	14 329	12 41.1
30	15 8 4.29	2 39.49	20 0 49.8	24 25.4	0.718 036	12 821	12 34.8
31	15 5 24.80	3 13.46	19 36 24.4	28 42.6	0.705 215	11 043	12 27.9
Nov. 1	15 2 11.34	3 44.39	—19 7 41.8	32 50.0	0.694 172	8 989	12 20.5
2	14 58 26.95	4 10.69	18 34 51.8	36 35.5	0.685 183	6 666	12 12.7
3	14 54 16.26	4 30.79	17 58 16.3	39 46.1	0.678 517	4 096	12 4.4
4	14 49 45.47	4 43.26	17 18 30.2	42 7.6	0.674 421	1 315	11 55.9
5	14 45 2.21	4 47.06	16 36 22.6	43 27.5	0.673 106	1 620	11 47.2
6	14 40 15.15	4 41.65	15 52 55.1	43 36.6	0.674 726	4 645	11 38.6
7	14 35 33.50	4 27.07	—15 9 18.5	42 30.2	0.679 371	7 680	11 30.1
8	14 31 6.43	4 4.04	14 26 48.3	40 9.7	0.687 051	10 647	11 21.9
9	14 27 2.39	3 33.75	13 46 38.6	36 41.9	0.697 698	13 468	11 14.2
10	14 23 28.64	2 57.79	13 9 56.7	32 18.4	0.711 166	16 076	11 7.0
11	14 20 30.85	2 17.89	12 37 38.3	27 13.8	0.727 242	18 417	11 0.4
12	14 18 12.96	1 35.80	12 10 24.5	21 43.5	0.745 659	20 451	10 54.5
13	14 16 37.16	0 53.06	—11 48 41.0	16 2.5	0.766 110	22 159	10 49.3
14	14 15 44.10	0 11.01	11 32 38.5	10 23.5	0.788 269	23 537	10 44.8
15	14 15 33.09	0 29.37	11 22 15.0	4 57.2	0.811 806	24 592	10 41.0
16	14 16 2.46	1 7.34	11 17 17.8	0 9.1	0.836 398	25 340	10 37.8
17	14 17 9.80	1 42.48	11 17 26.9	4 50.3	0.861 738	25 811	10 35.3
18	14 18 52.28	2 14.56	11 22 17.2	9 3.4	0.887 549	26 031	10 33.3
19	14 21 6.84	2 43.53	—11 31 20.6	12 47.4	0.913 580	26 034	10 31.8
20	14 23 50.37	3 9.49	11 44 8.0	16 2.7	0.939 614	25 851	10 30.8
21	14 26 59.86	3 32.59	12 0 10.7	18 50.2	0.965 465	25 514	10 30.2
22	14 30 32.45	3 53.05	12 19 0.9	21 11.9	0.990 979	25 048	10 29.9
23	14 34 25.50	4 11.12	12 40 12.8	23 9.7	1.016 027	24 481	10 30.0
24	14 38 36.62		—13 3 22.5		1.040 508		10 30.4

Tag	0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Nov. 24	14 38 36.62	4 27.05	—13 3 22.5	24 45.9	1.040 508	23 836	10 30.4
25	14 43 3.67	4 41.08	13 28 8.4	26 2.5	1.064 344	23 128	10 31.0
26	14 47 44.75	4 53.46	13 54 10.9	27 1.8	1.087 472	22 377	10 31.8
27	14 52 38.21	5 4.37	14 21 12.7	27 45.6	1.109 849	21 595	10 32.8
28	14 57 42.58	5 14.03	14 48 58.3	28 15.9	1.131 444	20 793	10 34.0
29	15 2 56.61	5 22.62	15 17 14.2	28 34.2	1.152 237	19 981	10 35.4
30	15 8 19.23	5 30.27	—15 45 48.4	28 42.0	1.172 218	19 165	10 36.9
Dez. 1	15 13 49.50	5 37.12	16 14 30.4	28 40.4	1.191 383	18 351	10 38.5
2	15 19 26.62	5 43.29	16 43 10.8	28 30.7	1.209 734	17 542	10 40.3
3	15 25 9.91	5 48.87	17 11 41.5	28 13.7	1.227 276	16 744	10 42.1
4	15 30 58.78	5 53.97	17 39 55.2	27 50.5	1.244 020	15 957	10 44.0
5	15 36 52.75	5 58.62	18 7 45.7	27 21.6	1.259 977	15 185	10 46.0
6	15 42 51.37	6 2.92	—18 35 7.3	26 47.6	1.275 162	14 426	10 48.0
7	15 48 54.29	6 6.90	19 1 54.9	26 9.3	1.289 588	13 683	10 50.2
8	15 55 1.19	6 10.63	19 28 4.2	25 27.0	1.303 271	12 956	10 52.4
9	16 1 11.82	6 14.11	19 53 31.2	24 41.0	1.316 227	12 245	10 54.7
10	16 7 25.93	6 17.41	20 18 12.2	23 51.9	1.328 472	11 549	10 57.0
11	16 13 43.34	6 20.53	20 42 4.1	22 59.7	1.340 021	10 869	10 59.4
12	16 20 3.87	6 23.50	—21 5 3.8	22 4.9	1.350 890	10 203	11 1.8
13	16 26 27.37	6 26.35	21 27 8.7	21 7.6	1.361 093	9 550	11 4.3
14	16 32 53.72	6 29.07	21 48 16.3	20 8.1	1.370 643	8 912	11 6.8
15	16 39 22.79	6 31.69	22 8 24.4	19 6.3	1.379 555	8 285	11 9.3
16	16 45 54.48	6 34.22	22 27 30.7	18 2.7	1.387 840	7 670	11 11.9
17	16 52 28.70	6 36.66	22 45 33.4	16 57.0	1.395 510	7 066	11 14.6
18	16 59 5.36	6 39.02	—23 2 30.4	15 49.8	1.402 576	6 470	11 17.3
19	17 5 44.38	6 41.30	23 18 20.2	14 40.8	1.409 046	5 884	11 20.0
20	17 12 25.68	6 43.50	23 33 1.0	13 30.1	1.414 930	5 306	11 22.8
21	17 19 9.18	6 45.63	23 46 31.1	12 18.0	1.420 236	4 733	11 25.6
22	17 25 54.81	6 47.68	23 58 49.1	11 4.4	1.424 969	4 167	11 28.4
23	17 32 42.49	6 49.66	24 9 53.5	9 49.4	1.429 136	3 605	11 31.3
24	17 39 32.15	6 51.56	—24 19 42.9	8 32.9	1.432 741	3 047	11 34.2
25	17 46 23.71	6 53.39	24 28 15.8	7 15.2	1.435 788	2 491	11 37.2
26	17 53 17.10	6 55.12	24 35 31.0	5 56.2	1.438 279	1 937	11 40.1
27	18 0 12.22	6 56.78	24 41 27.2	4 35.8	1.440 216	1 383	11 43.1
28	18 7 9.00	6 58.36	24 46 3.0	3 14.3	1.441 599	829	11 46.1
29	18 14 7.36	6 59.83	24 49 17.3	1 51.6	1.442 428	271	11 49.2
30	18 21 7.19	7 1.22	—24 51 8.9	0 27.6	1.442 699	289	11 52.3
31	18 28 8.41	7 2.50	24 51 36.5	0 57.3	1.442 410	854	11 55.4
32	18 35 10.91		—24 50 39.2		1.441 556		11 58.5

Tag	0h Weltzeit: Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Δ	Diff.	Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Jan. 0	15 37 49.16	2 49.51	—15 22 31.7	7 25.7	0.462 311	7 131	9 2.1
1	15 40 38.67	2 53.99	15 29 57.4	7 46.5	0.469 442	7 175	9 1.0
2	15 43 32.66	2 58.34	15 37 43.9	8 5.6	0.476 617	7 218	9 0.0
3	15 46 31.00	3 2.56	15 45 49.5	8 22.6	0.483 835	7 258	8 59.1
4	15 49 33.56	3 6.67	15 54 12.1	8 37.7	0.491 093	7 295	8 58.2
5	15 52 40.23	3 10.65	16 2 49.8	8 51.1	0.498 388	7 331	8 57.4
6	15 55 50.88	3 14.54	—16 11 40.9	9 2.7	0.505 719	7 363	8 56.7
7	15 59 5.42	3 18.32	16 20 43.6	9 12.6	0.513 082	7 394	8 56.0
8	16 2 23.74	3 22.00	16 29 56.2	9 20.8	0.520 476	7 423	8 55.4
9	16 5 45.74	3 25.57	16 39 17.0	9 27.2	0.527 899	7 449	8 54.8
10	16 9 11.31	3 29.06	16 48 44.2	9 32.0	0.535 348	7 472	8 54.3
11	16 12 40.37	3 32.43	16 58 16.2	9 35.2	0.542 820	7 494	8 53.9
12	16 16 12.80	3 35.71	—17 7 51.4	9 36.9	0.550 314	7 514	8 53.5
13	16 19 48.51	3 38.90	17 17 28.3	9 36.9	0.557 828	7 532	8 53.2
14	16 23 27.41	3 41.99	17 27 5.2	9 35.4	0.565 360	7 548	8 52.9
15	16 27 9.40	3 44.99	17 36 40.6	9 32.4	0.572 908	7 563	8 52.7
16	16 30 54.39	3 47.90	17 46 13.0	9 28.1	0.580 471	7 576	8 52.5
17	16 34 42.29	3 50.74	17 55 41.1	9 22.5	0.588 047	7 587	8 52.4
18	16 38 33.03	3 53.48	—18 5 3.6	9 15.2	0.595 634	7 598	8 52.3
19	16 42 26.51	3 56.14	18 14 18.8	9 6.9	0.603 232	7 608	8 52.3
20	16 46 22.65	3 58.73	18 23 25.7	8 57.2	0.610 840	7 616	8 52.3
21	16 50 21.38	4 1.24	18 32 22.9	8 46.4	0.618 456	7 623	8 52.3
22	16 54 22.62	4 3.68	18 41 9.3	8 34.3	0.626 079	7 630	8 52.4
23	16 58 26.30	4 6.03	18 49 43.6	8 21.0	0.633 709	7 635	8 52.5
24	17 2 32.33	4 8.33	—18 58 4.6	8 6.8	0.641 344	7 639	8 52.7
25	17 6 40.66	4 10.55	19 6 11.4	7 51.3	0.648 983	7 644	8 52.9
26	17 10 51.21	4 12.69	19 14 2.7	7 34.9	0.656 627	7 648	8 53.2
27	17 15 3.90	4 14.79	19 21 37.6	7 17.4	0.664 275	7 650	8 53.5
28	17 19 18.69	4 16.80	19 28 55.0	6 59.0	0.671 925	7 652	8 53.8
29	17 23 35.49	4 18.77	19 35 54.0	6 39.7	0.679 577	7 654	8 54.1
30	17 27 54.26	4 20.66	—19 42 33.7	6 19.5	0.687 231	7 656	8 54.5
31	17 32 14.92	4 22.50	19 48 53.2	5 58.3	0.694 887	7 656	8 54.9
Febr. 1	17 36 37.42	4 24.28	19 54 51.5	5 36.4	0.702 543	7 656	8 55.4
2	17 41 1.70	4 26.01	20 0 27.9	5 13.7	0.710 199	7 656	8 55.8
3	17 45 27.71	4 27.67	20 5 41.6	4 50.1	0.717 855	7 655	8 56.3
4	17 49 55.38	4 29.28	20 10 31.7	4 25.9	0.725 510	7 653	8 56.9
5	17 54 24.66	4 30.82	—20 14 57.6	4 1.0	0.733 163	7 650	8 57.4
6	17 58 55.48	4 32.32	20 18 58.6	3 35.2	0.740 813	7 647	8 58.0
7	18 3 27.80	4 33.74	20 22 33.8	3 8.9	0.748 460	7 642	8 58.6
8	18 8 1.54	4 35.10	20 25 42.7	2 41.8	0.756 102	7 637	8 59.2
9	18 12 36.64	4 36.41	20 28 24.5	2 14.2	0.763 739	7 630	8 59.9
10	18 17 13.05		—20 30 38.7		0.771 369		9 0.6

Tag	0h Weltzeit Scheinbare Rektaszension		0h Weltzeit Scheinbare Deklination		0h Weltzeit Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Febr. 10	18 17 13.05	4 37.63	−20 30 38.7	1 46.0	0.771 369	7 624	9 0.6
11	18 21 50.68	4 38.80	20 32 24.7	1 17.3	0.778 993	7 615	9 1.3
12	18 26 29.48	4 39.89	20 33 42.0	0 48.1	0.786 608	7 608	9 2.0
13	18 31 9.37	4 40.92	20 34 30.1	0 18.4	0.794 216	7 598	9 2.7
14	18 35 50.29	4 41.87	20 34 48.5	0 11.8	0.801 814	7 588	9 3.4
15	18 40 32.16	4 42.77	20 34 36.7	0 42.3	0.809 402	7 578	9 4.2
16	18 45 14.93	4 43.58	−20 33 54.4	1 13.1	0.816 980	7 568	9 5.0
17	18 49 58.51	4 44.35	20 32 41.3	1 44.3	0.824 548	7 556	9 5.8
18	18 54 42.86	4 45.04	20 30 57.0	2 15.8	0.832 104	7 544	9 6.6
19	18 59 27.90	4 45.66	20 28 41.2	2 47.6	0.839 648	7 533	9 7.4
20	19 4 13.56	4 46.22	20 25 53.6	3 19.4	0.847 181	7 520	9 8.2
21	19 8 59.78	4 46.72	20 22 34.2	3 51.6	0.854 701	7 508	9 9.0
22	19 13 46.50	4 47.15	−20 18 42.6	4 23.9	0.862 209	7 495	9 9.9
23	19 18 33.65	4 47.53	20 14 18.7	4 56.2	0.869 704	7 483	9 10.7
24	19 23 21.18	4 47.84	20 9 22.5	5 28.6	0.877 187	7 470	9 11.6
25	19 28 9.02	4 48.10	20 3 53.9	6 1.2	0.884 657	7 456	9 12.4
26	19 32 57.12	4 48.30	19 57 52.7	6 33.6	0.892 113	7 444	9 13.3
27	19 37 45.42	4 48.45	19 51 19.1	7 6.2	0.899 557	7 431	9 14.1
28	19 42 33.87	4 48.55	−19 44 12.9	7 38.5	0.906 988	7 418	9 15.0
März 1	19 47 22.42	4 48.61	19 36 34.4	8 11.0	0.914 406	7 404	9 15.9
2	19 52 11.03	4 48.62	19 28 23.4	8 43.3	0.921 810	7 391	9 16.7
3	19 56 59.65	4 48.59	19 19 40.1	9 15.6	0.929 201	7 378	9 17.6
4	20 1 48.24	4 48.52	19 10 24.5	9 47.5	0.936 579	7 364	9 18.5
5	20 6 36.76	4 48.39	19 0 37.0	10 19.4	0.943 943	7 350	9 19.4
6	20 11 25.15	4 48.25	−18 50 17.6	10 51.2	0.951 293	7 335	9 20.2
7	20 16 13.40	4 48.05	18 39 26.4	11 22.7	0.958 628	7 321	9 21.1
8	20 21 1.45	4 47.82	18 28 3.7	11 54.0	0.965 949	7 304	9 21.9
9	20 25 49.27	4 47.56	18 16 9.7	12 25.1	0.973 253	7 288	9 22.8
10	20 30 36.83	4 47.26	18 3 44.6	12 55.8	0.980 541	7 272	9 23.6
11	20 35 24.09	4 46.91	17 50 48.8	13 26.3	0.987 813	7 255	9 24.5
12	20 40 11.00	4 46.55	−17 37 22.5	13 56.4	0.995 068	7 236	9 25.3
13	20 44 57.55	4 46.15	17 23 26.1	14 26.2	1.002 304	7 218	9 26.1
14	20 49 43.70	4 45.72	17 8 59.9	14 55.6	1.009 522	7 200	9 27.0
15	20 54 29.42	4 45.25	16 54 4.3	15 24.6	1.016 722	7 180	9 27.8
16	20 59 14.67	4 44.77	16 38 39.7	15 53.2	1.023 902	7 160	9 28.6
17	21 3 59.44	4 44.25	16 22 46.5	16 21.3	1.031 062	7 141	9 29.4
18	21 8 43.69	4 43.72	−16 6 25.2	16 49.0	1.038 203	7 120	9 30.2
19	21 13 27.41	4 43.16	15 49 36.2	17 16.3	1.045 323	7 100	9 31.0
20	21 18 10.57	4 42.59	15 32 19.9	17 43.0	1.052 423	7 078	9 31.8
21	21 22 53.16	4 42.00	15 14 36.9	18 9.2	1.059 501	7 057	9 32.5
22	21 27 35.16	4 41.38	14 56 27.7	18 34.9	1.066 558	7 036	9 33.3
23	21 32 16.54		−14 37 52.8		1.073 594		9 34.0

Tag	Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Δ	Diff.	Obere Kulmination in Greenwich
	0h Weltzeit						
1947	h m s	m s	° ′ ″	′ ″			h m
März 23	21 32 16.54	4 40.77	−14 37 52.8	19 0.1	1.073 594	7 015	9 34.0
24	21 36 57.31	4 40.14	14 18 52.7	19 24.6	1.080 609	6 993	9 34.8
25	21 41 37.45	4 39.51	13 59 28.1	19 48.8	1.087 602	6 971	9 35.5
26	21 46 16.96	4 38.86	13 39 39.3	20 12.2	1.094 573	6 950	9 36.2
27	21 50 55.82	4 38.22	13 19 27.1	20 35.2	1.101 523	6 928	9 36.9
28	21 55 34.04	4 37.58	12 58 51.9	20 57.6	1.108 451	6 907	9 37.6
29	22 0 11.62	4 36.94	−12 37 54.3	21 19.3	1.115 358	6 886	9 38.3
30	22 4 48.56	4 36.31	12 16 35.0	21 40.5	1.122 244	6 865	9 38.9
31	22 9 24.87	4 35.69	11 54 54.5	22 1.2	1.129 109	6 843	9 39.6
April 1	22 14 0.56	4 35.07	11 32 53.3	22 21.2	1.135 952	6 821	9 40.2
2	22 18 35.63	4 34.47	11 10 32.1	22 40.8	1.142 773	6 800	9 40.9
3	22 23 10.10	4 33.89	10 47 51.3	22 59.7	1.149 573	6 778	9 41.5
4	22 27 43.99	4 33.31	−10 24 51.6	23 17.9	1.156 351	6 755	9 42.1
5	22 32 17.30	4 32.75	10 1 33.7	23 35.7	1.163 106	6 732	9 42.7
6	22 36 50.05	4 32.21	9 37 58.0	23 52.8	1.169 838	6 709	9 43.3
7	22 41 22.26	4 31.68	9 14 5.2	24 9.3	1.176 547	6 685	9 43.9
8	22 45 53.94	4 31.17	8 49 55.9	24 25.2	1.183 232	6 661	9 44.5
9	22 50 25.11	4 30.69	8 25 30.7	24 40.4	1.189 893	6 636	9 45.1
10	22 54 55.80	4 30.22	− 8 0 50.3	24 55.2	1.196 529	6 611	9 45.6
11	22 59 26.02	4 29.76	7 35 55.1	25 9.1	1.203 140	6 584	9 46.2
12	23 3 55.78	4 29.34	7 10 46.0	25 22.5	1.209 724	6 558	9 46.7
13	23 8 25.12	4 28.93	6 45 23.5	25 35.2	1.216 282	6 531	9 47.3
14	23 12 54.05	4 28.54	6 19 48.3	25 47.4	1.222 813	6 504	9 47.8
15	23 17 22.59	4 28.17	5 54 0.9	25 58.7	1.229 317	6 476	9 48.4
16	23 21 50.76	4 27.84	− 5 28 2.2	26 9.5	1.235 793	6 447	9 48.9
17	23 26 18.60	4 27.51	5 1 52.7	26 19.6	1.242 240	6 419	9 49.4
18	23 30 46.11	4 27.22	4 35 33.1	26 29.1	1.248 659	6 389	9 49.9
19	23 35 13.33	4 26.96	4 9 4.0	26 37.9	1.255 048	6 360	9 50.4
20	23 39 40.29	4 26.71	3 42 26.1	26 45.9	1.261 408	6 330	9 50.9
21	23 44 7.00	4 26.50	3 15 40.2	26 53.4	1.267 738	6 300	9 51.4
22	23 48 33.50	4 26.31	− 2 48 46.8	27 0.2	1.274 038	6 270	9 51.9
23	23 52 59.81	4 26.15	2 21 46.6	27 6.2	1.280 308	6 239	9 52.4
24	23 57 25.96	4 26.02	1 54 40.4	27 11.7	1.286 547	6 210	9 52.9
25	0 1 51.98	4 25.92	1 27 28.7	27 16.4	1.292 757	6 179	9 53.4
26	0 6 17.90	4 25.86	1 0 12.3	27 20.5	1.298 936	6 149	9 53.9
27	0 10 43.76	4 25.82	0 32 51.8	27 24.0	1.305 085	6 119	9 54.4
28	0 15 9.58	4 25.82	− 0 5 27.8	27 26.8	1.311 204	6 088	9 54.9
29	0 19 35.40	4 25.86	+ 0 21 59.0	27 29.0	1.317 292	6 058	9 55.4
30	0 24 1.26	4 25.93	0 49 28.0	27 30.5	1.323 350	6 028	9 55.8
Mai 1	0 28 27.19	4 26.04	1 16 58.5	27 31.3	1.329 378	5 997	9 56.3
2	0 32 53.23	4 26.19	1 44 29.8	27 31.6	1.335 375	5 965	9 56.8
3	0 37 19.42		+ 2 12 1.4		1.341 340		9 57.3

Tag	0h Weltzeit: Scheinbare Rektaszension		0h Weltzeit: Scheinbare Deklination		0h Weltzeit: Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Mai 3	0 37 19.42	4 26.37	+ 2 12 1.4	27 31.1	1.341 340	5 934	9 57.3
4	0 41 45.79	4 26.59	2 39 32.5	27 30.2	1.347 274	5 903	9 57.8
5	0 46 12.38	4 26.84	3 7 2.7	27 28.5	1.353 177	5 870	9 58.3
6	0 50 39.22	4 27.14	3 34 31.2	27 26.1	1.359 047	5 837	9 58.8
7	0 55 6.36	4 27.46	4 1 57.3	27 23.1	1.364 884	5 804	9 59.4
8	0 59 33.82	4 27.82	4 29 20.4	27 19.5	1.370 688	5 769	9 59.9
9	1 4 1.64	4 28.21	+ 4 56 39.9	27 15.1	1.376 457	5 735	10 0.4
10	1 8 29.85	4 28.65	5 23 55.0	27 10.1	1.382 192	5 700	10 0.9
11	1 12 58.50	4 29.11	5 51 5.1	27 4.5	1.387 892	5 664	10 1.5
12	1 17 27.61	4 29.60	6 18 9.6	26 58.1	1.393 556	5 628	10 2.0
13	1 21 57.21	4 30.13	6 45 7.7	26 51.0	1.399 184	5 591	10 2.6
14	1 26 27.34	4 30.70	7 11 58.7	26 43.3	1.404 775	5 553	10 3.1
15	1 30 58.04	4 31.29	+ 7 38 42.0	26 34.9	1.410 328	5 515	10 3.7
16	1 35 29.33	4 31.91	8 5 16.9	26 25.8	1.415 843	5 477	10 4.3
17	1 40 1.24	4 32.56	8 31 42.7	26 16.0	1.421 320	5 438	10 4.9
18	1 44 33.80	4 33.24	8 57 58.7	26 5.4	1.426 758	5 398	10 5.5
19	1 49 7.04	4 33.96	9 24 4.1	25 44.2	1.432 156	5 358	10 6.1
20	1 53 41.00	4 34.68	9 49 58.3	25 42.2	1.437 514	5 318	10 6.7
21	1 58 15.68	4 35.45	+10 15 40.5	25 29.5	1.442 832	5 277	10 7.4
22	2 2 51.13	4 36.24	10 41 10.0	25 16.1	1.448 109	5 236	10 8.0
23	2 7 27.37	4 37.05	11 6 26.1	25 2.1	1.453 345	5 196	10 8.7
24	2 12 4.42	4 37.89	11 31 28.2	24 47.2	1.458 541	5 155	10 9.4
25	2 16 42.31	4 38.75	11 56 15.4	24 31.7	1.463 696	5 114	10 10.1
26	2 21 21.06	4 39.64	12 20 47.1	24 15.5	1.468 810	5 074	10 10.8
27	2 26 0.70	4 40.56	+12 45 2.6	23 58.6	1.473 884	5 032	10 11.5
28	2 30 41.26	4 41.50	13 9 1.2	23 41.0	1.478 916	4 992	10 12.2
29	2 35 22.76	4 42.46	13 32 42.2	23 22.8	1.483 908	4 951	10 13.0
30	2 40 5.22	4 43.45	13 56 5.0	23 3.8	1.488 859	4 909	10 13.8
31	2 44 48.67	4 44.45	14 19 8.8	22 44.1	1.493 768	4 867	10 14.6
Juni 1	2 49 33.12	4 45.48	14 41 52.9	22 23.8	1.498 635	4 825	10 15.4
2	2 54 18.60	4 46.52	+15 4 16.7	22 2.7	1.503 460	4 783	10 16.2
3	2 59 5.12	4 47.58	15 26 19.4	21 41.0	1.508 243	4 740	10 17.0
4	3 3 52.70	4 48.66	15 48 0.4	21 18.6	1.512 983	4 697	10 17.9
5	3 8 41.36	4 49.75	16 9 19.0	20 55.4	1.517 680	4 653	10 18.8
6	3 13 31.11	4 50.85	16 30 14.4	20 31.6	1.522 333	4 609	10 19.7
7	3 18 21.96	4 51.96	16 50 46.0	20 7.2	1.526 942	4 564	10 20.6
8	3 23 13.92	4 53.08	+17 10 53.2	19 42.0	1.531 506	4 519	10 21.5
9	3 28 7.00	4 54.19	17 30 35.2	19 16.1	1.536 025	4 473	10 22.4
10	3 33 1.19	4 55.32	17 49 51.3	18 49.6	1.540 498	4 426	10 23.4
11	3 37 56.51	4 56.44	18 8 40.9	18 22.3	1.544 924	4 379	10 24.4
12	3 42 52.95	4 57.57	18 27 3.2	17 54.4	1.549 303	4 332	10 25.4
13	3 47 50.52		+18 44 57.6		1.553 635		10 26.4

Tag	0ʰ Weltzeit: Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Δ	Diff.	Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Juni 13	3 47 50.52	4 58.69	+18 44 57.6	17 25.9	1.553 635	4 283	10 26.4
14	3 52 49.21	4 59.79	19 2 23.5	16 56.6	1.557 918	4 235	10 27.5
15	3 57 49.00	5 0.90	19 19 20.1	16 26.6	1.562 153	4 185	10 28.5
16	4 2 49.90	5 1.98	19 35 46.7	15 56.2	1.566 338	4 135	10 29.6
17	4 7 51.88	5 3.06	19 51 42.9	15 24.9	1.570 473	4 085	10 30.7
18	4 12 54.94	5 4.11	20 7 7.8	14 53.2	1.574 558	4 035	10 31.8
19	4 17 59.05	5 5.15	+20 22 1.0	14 20.7	1.578 593	3 984	10 33.0
20	4 23 4.20	5 6.16	20 36 21.7	13 47.6	1.582 577	3 933	10 34.1
21	4 28 10.36	5 7.15	20 50 9.3	13 14.0	1.586 510	3 882	10 35.3
22	4 33 17.51	5 8.11	21 3 23.3	12 39.9	1.590 392	3 831	10 36.5
23	4 38 25.62	5 9.04	21 16 3.2	12 5.1	1.594 223	3 780	10 37.7
24	4 43 34.66	5 9.95	21 28 8.3	11 29.8	1.598 003	3 729	10 38.9
25	4 48 44.61	5 10.83	+21 39 38.1	10 54.1	1.601 732	3 678	10 40.1
26	4 53 55.44	5 11.67	21 50 32.2	10 17.9	1.605 410	3 628	10 41.4
27	4 59 7.11	5 12.49	22 0 50.1	9 41.1	1.609 038	3 577	10 42.6
28	5 4 19.60	5 13.27	22 10 31.2	9 4.1	1.612 615	3 526	10 43.9
29	5 9 32.87	5 14.01	22 19 35.3	8 26.4	1.616 141	3 474	10 45.2
30	5 14 46.88	5 14.71	22 28 1.7	7 48.5	1.619 615	3 423	10 46.5
Juli 1	5 20 1.59	5 15.37	+22 35 50.2	7 10.1	1.623 038	3 372	10 47.8
2	5 25 16.96	5 16.00	22 43 0.3	6 31.4	1.626 410	3 321	10 49.1
3	5 30 32.96	5 16.57	22 49 31.7	5 52.4	1.629 731	3 268	10 50.4
4	5 35 49.53	5 17.10	22 55 24.1	5 13.0	1.632 999	3 215	10 51.8
5	5 41 6.63	5 17.59	23 0 37.1	4 33.3	1.636 214	3 163	10 53.1
6	5 46 24.22	5 18.03	23 5 10.4	3 53.4	1.639 377	3 110	10 54.5
7	5 51 42.25	5 18.41	+23 9 3.8	3 13.3	1.642 487	3 057	10 55.8
8	5 57 0.66	5 18.75	23 12 17.1	2 32.9	1.645 544	3 003	10 57.2
9	6 2 19.41	5 19.04	23 14 50.0	1 52.4	1.648 547	2 949	10 58.6
10	6 7 38.45	5 19.26	23 16 42.4	1 11.7	1.651 496	2 894	11 0.0
11	6 12 57.71	5 19.44	23 17 54.1	0 30.9	1.654 390	2 839	11 1.3
12	6 18 17.15	5 19.57	23 18 25.0	0 10.1	1.657 229	2 783	11 2.7
13	6 23 36.72	5 19.63	+23 18 14.9	0 51.1	1.660 012	2 728	11 4.1
14	6 28 56.35	5 19.65	23 17 23.8	1 32.1	1.662 740	2 672	11 5.5
15	6 34 16.00	5 19.60	23 15 51.7	2 13.2	1.665 412	2 614	11 6.9
16	6 39 35.60	5 19.49	23 13 38.5	2 54.2	1.668 026	2 558	11 8.3
17	6 44 55.09	5 19.33	23 10 44.3	3 35.2	1.670 584	2 500	11 9.7
18	6 50 14.42	5 19.12	23 7 9.1	4 16.0	1.673 084	2 443	11 11.0
19	6 55 33.54	5 18.84	+23 2 53.1	4 56.9	1.675 527	2 385	11 12.4
20	7 0 52.38	5 18.50	22 57 56.2	5 37.5	1.677 912	2 328	11 13.8
21	7 6 10.88	5 18.13	22 52 18.7	6 17.9	1.680 240	2 272	11 15.2
22	7 11 29.01	5 17.69	22 46 0.8	6 58.1	1.682 512	2 214	11 16.5
23	7 16 46.70	5 17.20	22 39 2.7	7 38.2	1.684 726	2 157	11 17.9
24	7 22 3.90		+22 31 24.5		1.686 883		11 19.2

Tag	0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Juli 24	7 22 3.90	5 16.68	+22 31 24.5	8 17.9	1.686 883	2 101	11 19.2
25	7 27 20.58	5 16.09	22 23 6.6	8 57.3	1.688 984	2 045	11 20.5
26	7 32 36.67	5 15.48	22 14 9.3	9 36.5	1.691 029	1 989	11 21.9
27	7 37 52.15	5 14.81	22 4 32.8	10 15.3	1.693 018	1 932	11 23.2
28	7 43 6.96	5 14.12	21 54 17.5	10 53.8	1.694 950	1 877	11 24.5
29	7 48 21.08	5 13.37	21 43 23.7	11 31.8	1.696 827	1 821	11 25.8
30	7 53 34.45	5 12.61	+21 31 51.9	12 9.5	1.698 648	1 766	11 27.0
31	7 58 47.06	5 11.80	21 19 42.4	12 46.7	1.700 414	1 710	11 28.3
Aug. 1	8 3 58.86	5 10.96	21 6 55.7	13 23.5	1.702 124	1 654	11 29.5
2	8 9 9.82	5 10.10	20 53 32.2	13 59.9	1.703 778	1 598	11 30.8
3	8 14 19.92	5 9.20	20 39 32.3	14 35.7	1.705 376	1 543	11 32.0
4	8 19 29.12	5 8.29	20 24 56.6	15 11.1	1.706 919	1 487	11 33.2
5	8 24 37.41	5 7.36	+20 9 45.5	15 46.0	1.708 406	1 431	11 34.4
6	8 29 44.77	5 6.39	19 53 59.5	16 20.2	1.709 837	1 376	11 35.6
7	8 34 51.16	5 5.42	19 37 39.3	16 54.0	1.711 213	1 319	11 36.7
8	8 39 56.58	5 4.42	19 20 45.3	17 27.1	1.712 532	1 263	11 37.9
9	8 45 1.00	5 3.42	19 3 18.2	17 59.8	1.713 795	1 206	11 39.0
10	8 50 4.42	5 2.40	18 45 18.4	18 31.8	1.715 001	1 150	11 40.1
11	8 55 6.82	5 1.38	+18 26 46.6	19 3.3	1.716 151	1 092	11 41.2
12	9 0 8.20	5 0.34	18 7 43.3	19 34.0	1.717 243	1 035	11 42.3
13	9 5 8.54	4 59.29	17 48 9.3	20 4.2	1.718 278	978	11 43.3
14	9 10 7.83	4 58.24	17 28 5.1	20 33.7	1.719 256	921	11 44.3
15	9 15 6.07	4 57.19	17 7 31.4	21 2.6	1.720 177	862	11 45.4
16	9 20 3.26	4 56.14	16 46 28.8	21 30.7	1.721 039	805	11 46.4
17	9 24 59.40	4 55.08	+16 24 58.1	21 58.2	1.721 844	748	11 47.4
18	9 29 54.48	4 54.03	16 2 59.9	22 25.0	1.722 592	690	11 48.3
19	9 34 48.51	4 52.99	15 40 34.9	22 51.1	1.723 282	634	11 49.3
20	9 39 41.50	4 51.95	15 17 43.8	23 16.5	1.723 916	577	11 50.2
21	9 44 33.45	4 50.92	14 54 27.3	23 41.1	1.724 493	522	11 51.1
22	9 49 24.37	4 49.91	14 30 46.2	24 5.2	1.725 015	465	11 52.0
23	9 54 14.28	4 48.91	+14 6 41.0	24 28.4	1.725 480	411	11 52.9
24	9 59 3.19	4 47.93	13 42 12.6	24 50.9	1.725 891	356	11 53.8
25	10 3 51.12	4 46.97	13 17 21.7	25 12.8	1.726 247	301	11 54.6
26	10 8 38.09	4 46.03	12 52 8.9	25 33.9	1.726 548	247	11 55.4
27	10 13 24.12	4 45.11	12 26 35.0	25 54.3	1.726 795	194	11 56.3
28	10 18 9.23	4 44.22	12 0 40.7	26 14.0	1.726 989	141	11 57.1
29	10 22 53.45	4 43.35	+11 34 26.7	26 33.0	1.727 130	87	11 57.9
30	10 27 36.80	4 42.51	11 7 53.7	26 51.1	1.727 217	35	11 58.6
31	10 32 19.31	4 41.70	10 41 2.6	27 8.8	1.727 252	18	11 59.4
Sept. 1	10 37 1.01	4 40.92	10 13 53.8	27 25.6	1.727 234	70	12 0.1
2	10 41 41.93	4 40.17	9 46 28.2	27 41.7	1.727 164	122	12 0.9
3	10 46 22.10		+ 9 18 46.5		1.727 042		12 1.6

Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Sept. 3	10 46 22.10	4 39.45	+ 9 18 46.5	27 57.1	1.727 042	174	12 1.6
4	10 51 1.55	4 38.77	8 50 49.4	28 11.8	1.726 868	226	12 2.3
5	10 55 40.32	4 38.12	8 22 37.6	28 25.7	1.726 642	277	12 3.0
6	11 0 18.44	4 37.50	7 54 11.9	28 39.0	1.726 365	329	12 3.7
7	11 4 55.94	4 36.93	7 25 32.9	28 51.6	1.726 036	381	12 4.4
8	11 9 32.87	4 36.38	6 56 41.3	29 3.3	1.725 655	432	12 5.0
9	11 14 9.25	4 35.88	+ 6 27 38.0	29 14.5	1.725 223	485	12 5.7
10	11 18 45.13	4 35.40	5 58 23.5	29 24.8	1.724 738	536	12 6.3
11	11 23 20.53	4 34.97	5 28 58.7	29 34.4	1.724 202	589	12 7.0
12	11 27 55.50	4 34.58	4 59 24.3	29 43.3	1.723 613	640	12 7.6
13	11 32 30.08	4 34.21	4 29 41.0	29 51.5	1.722 973	692	12 8.3
14	11 37 4.29	4 33.89	3 59 49.5	29 58.9	1.722 281	744	12 8.9
15	11 41 38.18	4 33.61	+ 3 29 50.6	30 5.4	1.721 537	796	12 9.5
16	11 46 11.79	4 33.35	2 59 45.2	30 11.4	1.720 741	847	12 10.1
17	11 50 45.14	4 33.15	2 29 33.8	30 16.6	1.719 894	898	12 10.7
18	11 55 18.29	4 32.98	1 59 17.2	30 20.9	1.718 996	948	12 11.3
19	11 59 51.27	4 32.84	1 28 56.3	30 24.6	1.718 048	998	12 11.9
20	12 4 24.11	4 32.76	0 58 31.7	30 27.6	1.717 050	1 047	12 12.5
21	12 8 56.87	4 32.71	+ 0 28 4.1	30 29.6	1.716 003	1 096	12 13.1
22	12 13 29.58	4 32.70	— 0 2 25.5	30 31.1	1.714 907	1 145	12 13.8
23	12 18 2.28	4 32 74	0 32 56.6	30 31.9	1.713 762	1 192	12 14.4
24	12 22 35.02	4 32.82	1 3 28.5	30 31.8	1.712 570	1 239	12 15.0
25	12 27 7.84	4 32.94	1 34 0.3	30 31.0	1.711 331	1 287	12 15.6
26	12 31 40.78	4 33.11	2 4 31.3	30 29.5	1.710 044	1 332	12 16.2
27	12 36 13.89	4 33.32	— 2 35 0.8	30 27.3	1.708 712	1 379	12 16.8
28	12 40 47.21	4 33.57	3 5 28.1	30 24.3	1.707 333	1 424	12 17.4
29	12 45 20.78	4 33.86	3 35 52.4	30 20.5	1.705 909	1 470	12 18.0
30	12 49 54.64	4 34.21	4 6 12.9	30 16.1	1.704 439	1 514	12 18.6
Okt. 1	12 54 28.85	4 34.58	4 36 29.0	30 11.0	1.702 925	1 558	12 19.3
2	12 59 3.43	4 35.02	5 6 40.0	30 5.0	1.701 367	1 602	12 19.9
3	13 3 38.45	4 35.48	— 5 36 45.0	29 58.3	1.699 765	1 646	12 20.5
4	13 8 13.93	4 36.00	6 6 43.3	29 50.9	1.698 119	1 690	12 21.2
5	13 12 49.93	4 36.56	6 36 34.2	29 42.8	1.696 429	1 734	12 21.9
6	13 17 26.49	4 37.15	7 6 17.0	29 33.8	1.694 695	1 777	12 22.5
7	13 22 3.64	4 37.79	7 35 50.8	29 24.2	1.692 918	1 821	12 23.2
8	13 26 41.43	4 38.46	8 5 15.0	29 13.8	1.691 097	1 864	12 23.9
9	13 31 19.89	4 39.18	— 8 34 28.8	29 2.5	1.689 233	1 908	12 24.6
10	13 35 59.07	4 39.93	9 3 31.3	28 50.6	1.687 325	1 951	12 25.3
11	13 40 39.00	4 40.72	9 32 21.9	28 37.8	1.685 374	1 996	12 26.1
12	13 45 19.72	4 41.54	10 0 59.7	28 24.1	1.683 378	2 039	12 26.8
13	13 50 1.26	4 42.40	10 29 23.8	28 9.9	1.681 339	2 082	12 27.6
14	13 54 43.66		—10 57 33.7		1.679 257		12 28.3

Tag	0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Okt. 14	13 54 43.66	4 43.28	−10 57 33.7	27 54.7	1.679 257	2 126	12 28.3
15	13 59 26.94	4 44.20	11 25 28.4	27 38.6	1.677 131	2 170	12 29.1
16	14 4 11.14	4 45.14	11 53 7.0	27 21.9	1.674 961	2 212	12 29.9
17	14 8 56.28	4 46.13	12 20 28.9	27 4.3	1.672 749	2 254	12 30.7
18	14 13 42.41	4 47.12	12 47 33.2	26 45.9	1.670 495	2 297	12 31.6
19	14 18 29.53	4 48.16	13 14 19.1	26 26.6	1.668 198	2 338	12 32.4
20	14 23 17.69	4 49.21	−13 40 45.7	26 6.7	1.665 860	2 379	12 33.3
21	14 28 6.90	4 50.29	14 6 52.4	25 45.8	1.663 481	2 420	12 34.2
22	14 32 57.19	4 51.40	14 32 38.2	25 24.2	1.661 061	2 460	12 35.1
23	14 37 48.59	4 52.52	14 58 2.4	25 1.8	1.658 601	2 500	12 36.0
24	14 42 41.11	4 53.67	15 23 4.2	24 38.5	1.656 101	2 539	12 37.0
25	14 47 34.78	4 54.83	15 47 42.7	24 14.5	1.653 562	2 578	12 37.9
26	14 52 29.61	4 56.01	−16 11 57.2	23 49.7	1.650 984	2 616	12 38.9
27	14 57 25.62	4 57.21	16 35 46.9	23 24.1	1.648 368	2 655	12 39.9
28	15 2 22.83	4 58.41	16 59 11.0	22 57.7	1.645 713	2 692	12 40.9
29	15 7 21.24	4 59.64	17 22 8.7	22 30.5	1.643 021	2 729	12 42.0
30	15 12 20.88	5 0.87	17 44 39.2	22 2.6	1.640 292	2 766	12 43.0
31	15 17 21.75	5 2.11	18 6 41.8	21 33.9	1.637 526	2 802	12 44.1
Nov. 1	15 22 23.86	5 3.36	−18 28 15.7	21 4.4	1.634 724	2 838	12 45.2
2	15 27 27.22	5 4.60	18 49 20.1	20 34.1	1.631 886	2 875	12 46.4
3	15 32 31.82	5 5.85	19 9 54.2	20 3.2	1.629 011	2 911	12 47.5
4	15 37 37.67	5 7.10	19 29 57.4	19 31.4	1.626 100	2 946	12 48.7
5	15 42 44.77	5 8.34	19 49 28.8	18 59.0	1.623 154	2 983	12 49.9
6	15 47 53.11	5 9.57	20 8 27.8	18 25.7	1.620 171	3 020	12 51.1
7	15 53 2.68	5 10.79	−20 26 53.5	17 51.8	1.617 151	3 056	12 52.3
8	15 58 13.47	5 12.00	20 44 45.3	17 17.1	1.614 095	3 092	12 53.5
9	16 3 25.47	5 13.18	21 2 2.4	16 41.7	1.611 003	3 129	12 54.8
10	16 8 38.65	5 14.35	21 18 44.1	16 5.6	1.607 874	3 165	12 56.1
11	16 13 53.00	5 15.48	21 34 49.7	15 28.9	1.604 709	3 202	12 57.4
12	16 19 8.48	5 16.60	21 50 18.6	14 51.5	1.601 507	3 239	12 58.7
13	16 24 25.08	5 17.67	−22 5 10.1	14 13.3	1.598 268	3 276	13 0.1
14	16 29 42.75	5 18.71	22 19 23.4	13 34.7	1.594 992	3 312	13 1.4
15	16 35 1.46	5 19.71	22 32 58.1	12 55.4	1.591 680	3 349	13 2.8
16	16 40 21.17	5 20.67	22 45 53.5	12 15.5	1.588 331	3 384	13 4.2
17	16 45 41.84	5 21.60	22 58 9.0	11 35.0	1.584 947	3 421	13 5.6
18	16 51 3.44	5 22.46	23 9 44.0	10 54.1	1.581 526	3 455	13 7.1
19	16 56 25.90	5 23.30	−23 20 38.1	10 12.6	1.578 071	3 491	13 8.5
20	17 1 49.20	5 24.07	23 30 50.7	9 30.7	1.574 580	3 526	13 9.9
21	17 7 13.27	5 24.79	23 40 21.4	8 48.2	1.571 054	3 560	13 11.4
22	17 12 38.06	5 25.47	23 49 9.6	8 5.4	1.567 494	3 595	13 12.9
23	17 18 3.53	5 26.07	23 57 15.0	7 22.3	1.563 899	3 629	13 14.4
24	17 23 29.60		−24 4 37.3		1.560 270		13 15.9

Tag	0h Weltzeit: Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Δ	Diff.	Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Nov. 24	17 23 29.60	5 26.63	−24 4 37.3	6 38.6	1.560 270	3 662	13 15.9
25	17 28 56.23	5 27.13	24 11 15.9	5 54.8	1.556 608	3 695	13 17.4
26	17 34 23.36	5 27.56	24 17 10.7	5 10.7	1.552 913	3 728	13 18.9
27	17 39 50.92	5 27.93	24 22 21.4	4 26.2	1.549 185	3 760	13 20.4
28	17 45 18.85	5 28.25	24 26 47.6	3 41.6	1.545 425	3 793	13 22.0
29	17 50 47.10	5 28.50	24 30 29.2	2 56.7	1.541 632	3 824	13 23.5
30	17 56 15.60	5 28.68	−24 33 25.9	2 11.8	1.537 808	3 856	13 25.0
Dez. 1	18 1 44.28	5 28.81	24 35 37.7	1 26.6	1.533 952	3 888	13 26.6
2	18 7 13.09	5 28.86	24 37 4.3	0 41.5	1.530 064	3 919	13 28.1
3	18 12 41.95	5 28.86	24 37 45.8	0 3.7	1.526 145	3 951	13 29.6
4	18 18 10.81	5 28.78	24 37 42.1	0 49.0	1.522 194	3 983	13 31.2
5	18 23 39.59	5 28.65	24 36 53.1	1 34.3	1.518 211	4 015	13 32.7
6	18 29 8.24	5 28.44	−24 35 18.8	2 19.5	1.514 196	4 047	13 34.3
7	18 34 36.68	5 28.16	24 32 59.3	3 4.6	1.510 149	4 080	13 35.8
8	18 40 4.84	5 27.82	24 29 54.7	3 49.7	1.506 069	4 113	13 37.3
9	18 45 32.66	5 27.41	24 26 5.0	4 34.5	1.501 956	4 146	13 38.8
10	18 51 0.07	5 26.93	24 21 30.5	5 19.1	1.497 810	4 179	13 40.3
11	18 56 27.00	5 26.39	24 16 11.4	6 3.6	1.493 631	4 212	13 41.8
12	19 1 53.39	5 25.78	−24 10 7.8	6 47.8	1.489 419	4 246	13 43.3
13	19 7 19.17	5 25.11	24 3 20.0	7 31.7	1.485 173	4 279	13 44.8
14	19 12 44.28	5 24.37	23 55 48.3	8 15.2	1.480 894	4 313	13 46.3
15	19 18 8.65	5 23.58	23 47 33.1	8 58.4	1.476 581	4 346	13 47.8
16	19 23 32.23	5 22.74	23 38 34.7	9 41.2	1.472 235	4 379	13 49.2
17	19 28 54.97	5 21.82	23 28 53.5	10 23.7	1.467 856	4 413	13 50.6
18	19 34 16.79	5 20.86	−23 18 29.8	11 5.5	1.463 443	4 446	13 52.0
19	19 39 37.65	5 19.86	23 7 24.3	11 47.0	1.458 997	4 478	13 53.4
20	19 44 57.51	5 18.80	22 55 37.3	12 27.9	1.454 519	4 512	13 54.8
21	19 50 16.31	5 17.69	22 43 9.4	13 8.4	1.450 007	4 544	13 56.2
22	19 55 34.00	5 16.55	22 30 1.0	13 48.2	1.445 463	4 577	13 57.5
23	20 0 50.55	5 15.37	22 16 12.8	14 27.4	1.440 886	4 608	13 58.8
24	20 6 5.92	5 14.14	−22 1 45.4	15 6.1	1.436 278	4 641	14 0.1
25	20 11 20.06	5 12.90	21 46 39.3	15 44.1	1.431 637	4 672	14 1.4
26	20 16 32.96	5 11.62	21 30 55.2	16 21.6	1.426 965	4 703	14 2.7
27	20 21 44.58	5 10.30	21 14 33.6	16 58.2	1.422 262	4 734	14 3.9
28	20 26 54.88	5 8.99	20 57 35.4	17 34.4	1.417 528	4 764	14 5.1
29	20 32 3.87	5 7.64	20 40 1.0	18 9.8	1.412 764	4 795	14 6.3
30	20 37 11.51	5 6.28	−20 21 51.2	18 44.5	1.407 969	4 826	14 7.5
31	20 42 17.79	5 4.91	20 3 6.7	19 18.6	1.403 143	4 857	14 8.7
32	20 47 22.70		−19 43 48.1		1.398 286		14 9.8

Tag	0ʰ Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Jan. 0	18 45 6.28	3 20.39	−23 54 43.5	3 18.7	2.413 816	884	12 9.5
1	18 48 26.67	3 20.37	23 51 24.8	3 34.9	2.412 932	903	12 8.9
2	18 51 47.04	3 20.36	23 47 49.9	3 50.9	2.412 029	922	12 8.3
3	18 55 7.40	3 20.31	23 43 59.0	4 6.9	2.411 107	940	12 7.7
4	18 58 27.71	3 20.27	23 39 52.1	4 23.0	2.410 167	958	12 7.1
5	19 1 47.98	3 20.20	23 35 29.1	4 39.0	2.409 209	974	12 6.5
6	19 5 8.18	3 20.12	−23 30 50.1	4 54.9	2.408 235	991	12 5.9
7	19 8 28.30	3 20.02	23 25 55.2	5 10.8	2.407 244	1 006	12 5.3
8	19 11 48.32	3 19.93	23 20 44.4	5 26.7	2.406 238	1 022	12 4.7
9	19 15 8.25	3 19.81	23 15 17.7	5 42.4	2.405 216	1 038	12 4.1
10	19 18 28.06	3 19.69	23 9 35.3	5 58.2	2.404 178	1 052	12 3.5
11	19 21 47.75	3 19.54	23 3 37.1	6 13.8	2.403 126	1 068	12 2.8
12	19 25 7.29	3 19.40	−22 57 23.3	6 29.4	2.402 058	1 083	12 2.2
13	19 28 26.69	3 19.22	22 50 53.9	6 45.0	2.400 975	1 099	12 1.6
14	19 31 45.91	3 19.05	22 44 8.9	7 0.3	2.399 876	1 114	12 1.0
15	19 35 4.96	3 18.86	22 37 8.6	7 15.7	2.398 762	1 128	12 0.4
16	19 38 23.82	3 18.66	22 29 52.9	7 31.0	2.397 634	1 144	11 59.7
17	19 41 42.48	3 18.43	22 22 21.9	7 46.1	2.396 490	1 159	11 59.1
18	19 45 0.91	3 18.20	−22 14 35.8	8 1.2	2.395 331	1 174	11 58.5
19	19 48 19.11	3 17.96	22 6 34.6	8 16.2	2.394 157	1 189	11 57.8
20	19 51 37.07	3 17.70	21 58 18.4	8 31.0	2.392 968	1 203	11 57.2
21	19 54 54.77	3 17.43	21 49 47.4	8 45.7	2.391 765	1 217	11 56.5
22	19 58 12.20	3 17.15	21 41 1.7	9 0.3	2.390 548	1 231	11 55.9
23	20 1 29.35	3 16.86	21 32 1.4	9 14.8	2.389 317	1 245	11 55.2
24	20 4 46.21	3 16.56	−21 22 46.6	9 29.2	2.388 072	1 259	11 54.6
25	20 8 2.77	3 16.24	21 13 17.4	9 43.3	2.386 813	1 271	11 53.9
26	20 11 19.01	3 15.91	21 3 34.1	9 57.5	2.385 542	1 284	11 53.2
27	20 14 34.92	3 15.58	20 53 36.6	10 11.4	2.384 258	1 296	11 52.5
28	20 17 50.50	3 15.23	20 43 25.2	10 25.1	2.382 962	1 307	11 51.8
29	20 21 5.73	3 14.88	20 33 0.1	10 38.8	2.381 655	1 319	11 51.1
30	20 24 20.61	3 14.52	−20 22 21.3	10 52.3	2.380 336	1 329	11 50.4
31	20 27 35.13	3 14.15	20 11 29.0	11 5.6	2.379 007	1 338	11 49.7
Febr. 1	20 30 49.28	3 13.78	20 0 23.4	11 18.7	2.377 669	1 347	11 49.0
2	20 34 3.06	3 13.40	19 49 4.7	11 31.8	2.376 322	1 356	11 48.3
3	20 37 16.46	3 13.02	19 37 32.9	11 44.6	2.374 966	1 364	11 47.6
4	20 40 29.49	3 12.64	19 25 48.3	11 57.3	2.373 602	1 372	11 46.9
5	20 43 42.12	3 12.24	−19 13 51.0	12 9.9	2.372 230	1 379	11 46.1
6	20 46 54.36	3 11.86	19 1 41.1	12 22.2	2.370 851	1 386	11 45.4
7	20 50 6.22	3 11.46	18 49 18.9	12 34.4	2.369 465	1 393	11 44.6
8	20 53 17.68	3 11.07	18 36 44.5	12 46.5	2.368 072	1 401	11 43.9
9	20 56 28.75	3 10.67	18 23 58.0	12 58.3	2.366 671	1 407	11 43.1
10	20 59 39.42		−18 10 59.7		2.365 264		11 42.4

Mars 1947

Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Febr. 10	20 59 39.42	3 10.27	—18 10 59.7	13 10.1	2.365 264	1 415	11 42.4
11	21 2 49.69	3 9.87	17 57 49.6	13 21.6	2.363 849	1 422	11 41.6
12	21 5 59.56	3 9.47	17 44 28.0	13 32.9	2.362 427	1 429	11 40.8
13	21 9 9.03	3 9.05	17 30 55.1	13 44.1	2.360 998	1 437	11 40.0
14	21 12 18.08	3 8.65	17 17 11.0	13 55.0	2.359 561	1 444	11 39.2
15	21 15 26.73	3 8.24	17 3 16.0	14 5.9	2.358 117	1 452	11 38.4
16	21 18 34.97	3 7.83	—16 49 10.1	14 16.5	2.356 665	1 459	11 37.6
17	21 21 42.80	3 7.41	16 34 53.6	14 26.8	2.355 206	1 467	11 36.8
18	21 24 50.21	3 6.99	16 20 26.8	14 37.1	2.353 739	1 474	11 36.0
19	21 27 57.20	3 6.58	16 5 49.7	14 47.0	2.352 265	1 481	11 35.2
20	21 31 3.78	3 6.15	15 51 2.7	14 56.9	2.350 784	1 489	11 34.3
21	21 34 9.93	3 5.74	15 36 5.8	15 6.5	2.349 295	1 496	11 33.5
22	21 37 15.67	3 5.31	—15 20 59.3	15 15.9	2.347 799	1 503	11 32.6
23	21 40 20.98	3 4.90	15 5 43.4	15 25.1	2.346 296	1 510	11 31.8
24	21 43 25.88	3 4.47	14 50 18.3	15 34.0	2.344 786	1 516	11 30.9
25	21 46 30.35	3 4.06	14 34 44.3	15 42.8	2.343 270	1 522	11 30.0
26	21 49 34.41	3 3.64	14 19 1.5	15 51.4	2.341 748	1 527	11 29.2
27	21 52 38.05	3 3.22	14 3 10.1	15 59.8	2.340 221	1 533	11 28.3
28	21 55 41.27	3 2.80	—13 47 10.3	16 7.9	2.338 688	1 537	11 27.4
März 1	21 58 44.07	3 2.40	13 31 2.4	16 15.8	2.337 151	1 542	11 26.5
2	22 1 46.47	3 1.99	13 14 46.6	16 23.6	2.335 609	1 545	11 25.6
3	22 4 48.46	3 1.59	12 58 23.0	16 31.1	2.334 064	1 549	11 24.7
4	22 7 50.05	3 1.20	12 41 51.9	16 38.5	2.332 515	1 552	11 23.8
5	22 10 51.25	3 0.80	12 25 13.4	16 45.7	2.330 963	1 555	11 22.8
6	22 13 52.05	3 0.43	—12 8 27.7	16 52.5	2.329 408	1 557	11 21.9
7	22 16 52.48	3 0.05	11 51 35.2	16 59.4	2.327 851	1 560	11 21.0
8	22 19 52.53	2 59.67	11 34 35.8	17 5.9	2.326 291	1 563	11 20.0
9	22 22 52.20	2 59.32	11 17 29.9	17 12.3	2.324 728	1 567	11 19.1
10	22 25 51.52	2 58.96	11 0 17.6	17 18.5	2.323 161	1 569	11 18.1
11	22 28 50.48	2 58.60	10 42 59.1	17 24.4	2.321 592	1 572	11 17.1
12	22 31 49.08	2 58.26	—10 25 34.7	17 30.2	2.320 020	1 576	11 16.2
13	22 34 47.34	2 57.92	10 8 4.5	17 35.8	2.318 444	1 581	11 15.2
14	22 37 45.26	2 57.59	9 50 28.7	17 41.2	2.316 863	1 584	11 14.2
15	22 40 42.85	2 57.26	9 32 47.5	17 46.3	2.315 279	1 589	11 13.2
16	22 43 40.11	2 56.93	9 15 1.2	17 51.3	2.313 690	1 593	11 12.2
17	22 46 37.04	2 56.62	8 57 9.9	17 56.1	2.312 097	1 598	11 11.2
18	22 49 33.66	2 56.31	— 8 39 13.8	18 0.6	2.310 499	1 603	11 10.2
19	22 52 29.97	2 56.00	8 21 13.2	18 5.0	2.308 896	1 608	11 9.2
20	22 55 25.97	2 55.69	8 3 8.2	18 9.1	2.307 288	1 613	11 8.2
21	22 58 21.66	2 55.41	7 44 59.1	18 13.0	2.305 675	1 618	11 7.2
22	23 1 17.07	2 55.11	7 26 46.1	18 16.7	2.304 057	1 624	11 6.2
23	23 4 12.18		— 7 8 29.4		2.302 433		11 5.2

Tag	Scheinbare Rektaszension (0h Weltzeit)		Scheinbare Deklination (0h Weltzeit)		Δ (0h Weltzeit)		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
März 23	23 4 12.18	2 54.82	− 7 8 29.4	18 20.1	2.302 433	1 630	11 5.2
24	23 7 7.00	2 54.54	6 50 9.3	18 23.5	2.300 803	1 635	11 4.1
25	23 10 1.54	2 54.27	6 31 45.8	18 26.5	2.299 168	1 639	11 3.1
26	23 12 55.81	2 54.00	6 13 19.3	18 29.4	2.297 529	1 645	11 2.1
27	23 15 49.81	2 53.74	5 54 49.9	18 32.0	2.295 884	1 649	11 1.0
28	23 18 43.55	2 53.48	5 36 17.9	18 34.4	2.294 235	1 654	11 0.0
29	23 21 37.03	2 53.23	− 5 17 43.5	18 36.7	2.292 581	1 658	10 58.9
30	23 24 30.26	2 53.00	4 59 6.8	18 38.7	2.290 923	1 662	10 57.9
31	23 27 23.26	2 52.76	4 40 28.1	18 40.5	2.289 261	1 665	10 56.8
April 1	23 30 16.02	2 52.54	4 21 47.6	18 42.2	2.287 596	1 669	10 55.7
2	23 33 8.56	2 52.33	4 3 5.4	18 43.7	2.285 927	1 672	10 54.7
3	23 36 0.89	2 52.13	3 44 21.7	18 44.9	2.284 255	1 675	10 53.6
4	23 38 53.02	2 51.93	− 3 25 36.8	18 46.1	2.282 580	1 679	10 52.5
5	23 41 44.95	2 51.75	3 6 50.7	18 46.9	2.280 901	1 683	10 51.4
6	23 44 36.70	2 51.58	2 48 3.8	18 47.8	2.279 218	1 686	10 50.4
7	23 47 28.28	2 51.41	2 29 16.0	18 48.3	2.277 532	1 690	10 49.3
8	23 50 19.69	2 51.25	2 10 27.7	18 48.6	2.275 842	1 695	10 48.2
9	23 53 10.94	2 51.11	1 51 39.1	18 48.9	2.274 147	1 700	10 47.1
10	23 56 2.05	2 50.97	− 1 32 50.2	18 48.8	2.272 447	1 705	10 46.0
11	23 58 53.02	2 50.84	1 14 1.4	18 48.6	2.270 742	1 711	10 44.9
12	0 1 43.86	2 50.71	0 55 12.8	18 48.4	2.269 031	1 717	10 43.8
13	0 4 34.57	2 50.60	0 36 24.4	18 47.8	2.267 314	1 723	10 42.7
14	0 7 25.17	2 50.49	− 0 17 36.6	18 47.0	2.265 591	1 731	10 41.6
15	0 10 15.66	2 50.38	+ 0 1 10.4	18 46.1	2.263 860	1 737	10 40.5
16	0 13 6.04	2 50.30	+ 0 19 56.5	18 45.0	2.262 123	1 745	10 39.4
17	0 15 56.34	2 50.20	0 38 41.5	18 43.6	2.260 378	1 754	10 38.3
18	0 18 46.54	2 50.12	0 57 25.1	18 42.2	2.258 624	1 762	10 37.2
19	0 21 36.66	2 50.05	1 16 7.3	18 40.5	2.256 862	1 770	10 36.1
20	0 24 26.71	2 49.98	1 34 47.8	18 38.5	2.255 092	1 780	10 35.0
21	0 27 16.69	2 49.91	1 53 26.3	18 36.5	2.253 312	1 788	10 33.9
22	0 30 6.60	2 49.85	+ 2 12 2.8	18 34.2	2.251 524	1 798	10 32.8
23	0 32 56.45	2 49.80	2 30 37.0	18 31.7	2.249 726	1 807	10 31.7
24	0 35 46.25	2 49.75	2 49 8.7	18 29.1	2.247 919	1 815	10 30.6
25	0 38 36,00	2 49.71	3 7 37.8	18 26.2	2.246 104	1 825	10 29.4
26	0 41 25.71	2 49.68	3 26 4.0	18 23.1	2.244 279	1 834	10 28.3
27	0 44 15.39	2 49.65	3 44 27.1	18 20.0	2.242 445	1 842	10 27.2
28	0 47 5.04	2 49.63	+ 4 2 47.1	18 16.6	2.240 603	1 850	10 26.1
29	0 49 54.67	2 49.62	4 21 3.7	18 13.0	2.238 753	1 859	10 25.0
30	0 52 44.29	2 49.62	4 39 16.7	18 9.4	2.236 894	1 868	10 23.9
Mai 1	0 55 33.91	2 49.62	4 57 26.1	18 5.5	2.235 026	1 877	10 22.8
2	0 58 23.53	2 49.64	5 15 31.6	18 1.4	2.233 149	1 885	10 21.6
3	1 1 13.17		+ 5 33 33.0		2.231 264		10 20.5

Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Mai 3	1 1 13.17	2 49.66	+ 5 33 33.0	17 57.3	2.231 264	1 894	10 20.5
4	1 4 2.83	2 49.70	5 51 30.3	17 52.9	2.229 370	1 904	10 19.4
5	1 6 52.53	2 49.73	6 9 23.2	17 48.5	2.227 466	1 913	10 18.3
6	1 9 42.26	2 49.78	6 27 11.7	17 43.8	2.225 553	1 924	10 17.2
7	1 12 32.04	2 49.83	6 44 55.5	17 39.0	2.223 629	1 934	10 16.1
8	1 15 21.87	2 49.89	7 2 34.5	17 34.1	2.221 695	1 946	10 15.0
9	1 18 11.76	2 49.95	+ 7 20 8.6	17 28.9	2.219 749	1 957	10 13.9
10	1 21 1.71	2 50.03	7 37 37.5	17 23.7	2.217 792	1 969	10 12.8
11	1 23 51.74	2 50.11	7 55 1.2	17 18.2	2.215 823	1 982	10 11.7
12	1 26 41.85	2 50.19	8 12 19.4	17 12.6	2.213 841	1 995	10 10.5
13	1 29 32.04	2 50.28	8 29 32.0	17 6.9	2.211 846	2 009	10 9.4
14	1 32 22.32	2 50.38	8 46 38.9	17 1.0	2.209 837	2 024	10 8.3
15	1 35 12.70	2 50.47	+ 9 3 39.9	16 54.9	2.207 813	2 038	10 7.2
16	1 38 3.17	2 50.57	9 20 34.8	16 48.7	2.205 775	2 054	10 6.1
17	1 40 53.74	2 50.67	9 37 23.5	16 42.3	2.203 721	2 070	10 5.0
18	1 43 44.41	2 50.78	9 54 5.8	16 35.7	2.201 651	2 086	10 3.9
19	1 46 35.19	2 50.90	10 10 41.5	16 29.0	2.199 565	2 103	10 2.8
20	1 49 26.09	2 51.00	10 27 10.5	16 22.1	2.197 462	2 120	10 1.8
21	1 52 17.09	2 51.11	+10 43 32.6	16 15.0	2.195 342	2 137	10 0.7
22	1 55 8.20	2 51.23	10 59 47.6	16 7.8	2.193 205	2 154	9 59.6
23	1 57 59.43	2 51.34	11 15 55.4	16 0.4	2.191 051	2 171	9 58.5
24	2 0 50.77	2 51.47	11 31 55.8	15 52.9	2.188 880	2 189	9 57.4
25	2 3 42.24	2 51.58	11 47 48.7	15 45.2	2.186 691	2 205	9 56.3
26	2 6 33.82	2 51.71	12 3 33.9	15 37.4	2.184 486	2 223	9 55.2
27	2 9 25.53	2 51.85	+12 19 11.3	15 29.5	2.182 263	2 239	9 54.1
28	2 12 17.38	2 51.97	12 34 40.8	15 21.4	2.180 024	2 257	9 53.1
29	2 15 9.35	2 52.11	12 50 2.2	15 13.2	2.177 767	2 274	9 52.0
30	2 18 1.46	2 52.26	13 5 15.4	15 4.9	2.175 493	2 292	9 50.9
31	2 20 53.72	2 52.40	13 20 20.3	14 56.4	2.173 201	2 309	9 49.9
Juni 1	2 23 46.12	2 52.54	13 35 16.7	14 47.9	2.170 892	2 327	9 48.8
2	2 26 38.66	2 52.70	+13 50 4.6	14 39.1	2.168 565	2 346	9 47.7
3	2 29 31.36	2 52.85	14 4 43.7	14 30.4	2.166 219	2 365	9 46.7
4	2 32 24.21	2 53.01	14 19 14.1	14 21.5	2.163 854	2 384	9 45.6
5	2 35 17.22	2 53.17	14 33 35.6	14 12.4	2.161 470	2 404	9 44.6
6	2 38 10.39	2 53.33	14 47 48.0	14 3.2	2.159 066	2 425	9 43.5
7	2 41 3.72	2 53.49	15 1 51.2	13 54.0	2.156 641	2 446	9 42.4
8	2 43 57.21	2 53.65	+15 15 45.2	13 44.5	2.154 195	2 467	9 41.4
9	2 46 50.86	2 53.82	15 29 29.7	13 35.1	2.151 728	2 490	9 40.4
10	2 49 44.68	2 53.97	15 43 4.8	13 25.4	2.149 238	2 513	9 39.3
11	2 52 38.65	2 54.14	15 56 30.2	13 15.6	2.146 725	2 536	9 38.3
12	2 55 32.79	2 54.30	16 9 45.8	13 5.8	2.144 189	2 561	9 37.2
13	2 58 27.09		+16 22 51.6		2.141 628		9 36.2

Tag	0ʰ Weltzeit: Scheinbare Rektaszension		0ʰ Weltzeit: Scheinbare Deklination		0ʰ Weltzeit: Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Juni 13	2 58 27.09	2 54.46	+16 22 51.6	12 55.8	2.141 628	2 585	9 36.2
14	3 1 21.55	2 54.61	16 35 47.4	12 45.7	2.139 043	2 611	9 35.1
15	3 4 16.16	2 54.77	16 48 33.1	12 35.5	2.136 432	2 636	9 34.1
16	3 7 10.93	2 54.92	17 1 8.6	12 25.2	2.133 796	2 663	9 33.1
17	3 10 5.85	2 55.06	17 13 33.8	12 14.7	2.131 133	2 690	9 32.1
18	3 13 0.91	2 55.20	17 25 48.5	12 4.1	2.128 443	2 717	9 31.0
19	3 15 56.11	2 55.33	+17 37 52.6	11 53.4	2.125 726	2 744	9 30.0
20	3 18 51.44	2 55.46	17 49 46.0	11 42.7	2.122 982	2 771	9 29.0
21	3 21 46.90	2 55.59	18 1 28.7	11 31.7	2.120 211	2 798	9 28.0
22	3 24 42.49	2 55.71	18 13 0.4	11 20.8	2.117 413	2 826	9 27.0
23	3 27 38.20	2 55.83	18 24 21.2	11 9.7	2.114 587	2 853	9 26.0
24	3 30 34.03	2 55.94	18 35 30.9	10 58.6	2.111 734	2 880	9 25.0
25	3 33 29.97	2 56.06	+18 46 29.5	10 47.4	2.108 854	2 907	9 23.9
26	3 36 26.03	2 56.16	18 57 16.9	10 36.0	2.105 947	2 935	9 22.9
27	3 39 22.19	2 56.26	19 7 52.9	10 24.6	2.103 012	2 962	9 21.9
28	3 42 18.45	2 56.37	19 18 17.5	10 13.3	2.100 050	2 990	9 20.9
29	3 45 14.82	2 56.47	19 28 30.8	10 1.7	2.097 060	3 018	9 19.9
30	3 48 11.29	2 56.57	19 38 32.5	9 50.2	2.094 042	3 047	9 18.9
Juli 1	3 51 7.86	2 56.66	+19 48 22.7	9 38.6	2.090 995	3 075	9 17.9
2	3 54 4.52	2 56.74	19 58 1.3	9 26.8	2.087 920	3 105	9 16.9
3	3 57 1.26	2 56.83	20 7 28.1	9 15.2	2.084 815	3 134	9 15.9
4	3 59 58.09	2 56.91	20 16 43.3	9 3.3	2.081 681	3 165	9 14.9
5	4 2 55.00	2 56.99	20 25 46.6	8 51.5	2.078 516	3 196	9 14.0
6	4 5 51.99	2 57.05	20 34 38.1	8 39.6	2.075 320	3 227	9 13.0
7	4 8 49.04	2 57.11	+20 43 17.7	8 27.6	2.072 093	3 259	9 12.0
8	4 11 46.15	2 57.17	20 51 45.3	8 15.6	2.068 834	3 292	9 11.0
9	4 14 43.32	2 57.21	21 0 0.9	8 3.6	2.065 542	3 325	9 10.0
10	4 17 40.53	2 57.26	21 8 4.5	7 51.5	2.062 217	3 358	9 9.0
11	4 20 37.79	2 57.29	21 15 56.0	7 39.3	2.058 859	3 393	9 8.0
12	4 23 35.08	2 57.32	21 23 35.3	7 27.1	2.055 466	3 428	9 7.0
13	4 26 32.40	2 57.32	+21 31 2.4	7 15.0	2.052 038	3 464	9 6.0
14	4 29 29.72	2 57.33	21 38 17.4	7 2.6	2.048 574	3 500	9 5.0
15	4 32 27.05	2 57.33	21 45 20.0	6 50.4	2.045 074	3 536	9 4.1
16	4 35 24.38	2 57.30	21 52 10.4	6 38.0	2.041 538	3 573	9 3.1
17	4 38 21.68	2 57.27	21 58 48.4	6 25.6	2.037 965	3 611	9 2.1
18	4 41 18.95	2 57.23	22 5 14.0	6 13.3	2.034 354	3 647	9 1.1
19	4 44 16.18	2 57.17	+22 11 27.3	6 0.8	2.030 707	3 685	9 0.1
20	4 47 13.35	2 57.11	22 17 28.1	5 48.4	2.027 022	3 721	8 59.1
21	4 50 10.46	2 57.04	22 23 16.5	5 35.9	2.023 301	3 759	8 58.1
22	4 53 7.50	2 56.95	22 28 52.4	5 23.5	2.019 542	3 796	8 57.1
23	4 56 4.45	2 56.86	22 34 15.9	5 11.1	2.015 746	3 832	8 56.2
24	4 59 1.31		+22 39 27.0		2.011 914		8 55.2

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Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Juli 24	4 59 1.31	2 56.75	+22 39 27.0	4 58.7	2.011 914	3 869	8 55.2
25	5 1 58.06	2 56.65	22 44 25.7	4 46.2	2.008 045	3 907	8 54.2
26	5 4 54.71	2 56.53	22 49 11.9	4 33.8	2.004 138	3 943	8 53.2
27	5 7 51.24	2 56.40	22 53 45.7	4 21.4	2.000 195	3 981	8 52.2
28	5 10 47.64	2 56.27	22 58 7.1	4 9.1	1.996 214	4 018	8 51.2
29	5 13 43.91	2 56.12	23 2 16.2	3 56.7	1.992 196	4 056	8 50.2
30	5 16 40.03	2 55.98	+23 6 12.9	3 44.4	1.988 140	4 095	8 49.1
31	5 19 36.01	2 55.81	23 9 57.3	3 32.2	1.984 045	4 133	8 48.1
Aug. 1	5 22 31.82	2 55.65	23 13 29.5	3 19.8	1.979 912	4 171	8 47.1
2	5 25 27.47	2 55.47	23 16 49.3	3 7.6	1.975 741	4 212	8 46.1
3	5 28 22.94	2 55.28	23 19 56.9	2 55.5	1.971 529	4 251	8 45.1
4	5 31 18.22	2 55.08	23 22 52.4	2 43.2	1.967 278	4 291	8 44.1
5	5 34 13.30	2 54.87	+23 25 35.6	2 31.1	1.962 987	4 332	8 43.0
6	5 37 8.17	2 54.66	23 28 6.7	2 19.1	1.958 655	4 374	8 42.0
7	5 40 2.83	2 54.43	23 30 25.8	2 7.0	1.954 281	4 415	8 41.0
8	5 42 57.26	2 54.20	23 32 32.8	1 55.0	1.949 866	4 458	8 39.9
9	5 45 51.46	2 53.94	23 34 27.8	1 43.1	1.945 408	4 501	8 38.9
10	5 48 45.40	2 53.68	23 36 10.9	1 31.2	1.940 907	4 544	8 37.9
11	5 51 39.08	2 53.41	+23 37 42.1	1 19.3	1.936 363	4 589	8 36.8
12	5 54 32.49	2 53.11	23 39 1.4	1 7.5	1.931 774	4 632	8 35.8
13	5 57 25.60	2 52.81	23 40 8.9	0 55.8	1.927 142	4 677	8 34.7
14	6 0 18.41	2 52.50	23 41 4.7	0 44.2	1.922 465	4 722	8 33.6
15	6 3 10.91	2 52.17	23 41 48.9	0 32.5	1.917 743	4 767	8 32.6
16	6 6 3.08	2 51.83	23 42 21.4	0 21.0	1.912 976	4 811	8 31.5
17	6 8 54.91	2 51.46	+23 42 42.4	0 9.6	1.908 165	4 856	8 30.4
18	6 11 46.37	2 51.10	23 42 52.0	0 1.8	1.903 309	4 900	8 29.3
19	6 14 37.47	2 50.72	23 42 50.2	0 13.0	1.898 409	4 945	8 28.2
20	6 17 28.19	2 50.34	23 42 37.2	0 24.3	1.893 464	4 989	8 27.1
21	6 20 18.53	2 49.93	23 42 12.9	0 35.3	1.888 475	5 032	8 26.0
22	6 23 8.46	2 49.53	23 41 37.6	0 46.3	1.883 443	5 076	8 24.9
23	6 25 57.99	2 49.11	+23 40 51.3	0 57.3	1.878 367	5 120	8 23.8
24	6 28 47.10	2 48.69	23 39 54.0	1 8.0	1.873 247	5 164	8 22.7
25	6 31 35.79	2 48.26	23 38 46.0	1 18.7	1.868 083	5 207	8 21.5
26	6 34 24.05	2 47.82	23 37 27.3	1 29.3	1.862 876	5 252	8 20.4
27	6 37 11.87	2 47.37	23 35 58.0	1 39.9	1.857 624	5 296	8 19.2
28	6 39 59.24	2 46.92	23 34 18.1	1 50.2	1.852 328	5 339	8 18.1
29	6 42 46.16	2 46.46	+23 32 27.9	2 0.4	1.846 989	5 384	8 16.9
30	6 45 32.62	2 45.98	23 30 27.5	2 10.7	1.841 605	5 429	8 15.8
31	6 48 18.60	2 45.51	23 28 16.8	2 20.7	1.836 176	5 474	8 14.6
Sept. 1	6 51 4.11	2 45.03	23 25 56.1	2 30.7	1.830 702	5 519	8 13.4
2	6 53 49.14	2 44.53	23 23 25.4	2 40.5	1.825 183	5 564	8 12.2
3	6 56 33.67		+23 20 44.9		1.819 619		8 11.0

Tag	0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Sept. 3	6 56 33.67	2 44.03	+23 20 44.9	2 50.2	1.819 619	5 611	8 11.0
4	6 59 17.70	2 43.52	23 17 54.7	2 59.8	1.814 008	5 656	8 9.8
5	7 2 1.22	2 43.01	23 14 54.9	3 9.3	1.808 352	5 704	8 8.6
6	7 4 44.23	2 42.47	23 11 45.6	3 18.6	1.802 648	5 750	8 7.4
7	7 7 26.70	2 41.94	23 8 27.0	3 27.9	1.796 898	5 798	8 6.1
8	7 10 8.64	2 41.39	23 4 59.1	3 37.0	1.791 100	5 846	8 4.9
9	7 12 50.03	2 40.83	+23 1 22.1	3 45.9	1.785 254	5 894	8 3.6
10	7 15 30.86	2 40.25	22 57 36.2	3 54.8	1.779 360	5 942	8 2.4
11	7 18 11.11	2 39.68	22 53 41.4	4 3.5	1.773 418	5 990	8 1.1
12	7 20 50.79	2 39.08	22 49 37.9	4 12.1	1.767 428	6 037	7 59.8
13	7 23 29.87	2 38.48	22 45 25.8	4 20.4	1.761 391	6 086	7 58.2
14	7 26 8.35	2 37.86	22 41 5.4	4 28.7	1.755 305	6 134	7 57.2
15	7 28 46.21	2 37.24	+22 36 36.7	4 36.8	1.749 171	6 181	7 55.9
16	7 31 23.45	2 36.61	22 31 59.9	4 44.8	1.742 990	6 227	7 54.5
17	7 34 0.06	2 35.96	22 27 15.1	4 52.6	1.736 763	6 274	7 53.2
18	7 36 36.02	2 35.31	22 22 22.5	5 0.2	1.730 489	6 320	7 51.9
19	7 39 11.33	2 34.66	22 17 22.3	5 7.7	1.724 169	6 366	7 50.5
20	7 41 45.99	2 34.00	22 12 14.6	5 15.1	1.717 803	6 411	7 49.2
21	7 44 19.99	2 33.33	+22 6 59.5	5 22.2	1.711 392	6 456	7 47.8
22	7 46 53.32	2 32.67	22 1 37.3	5 29.3	1.704 936	6 501	7 46.4
23	7 49 25.99	2 31.99	21 56 8.0	5 36.2	1.698 435	6 546	7 45.0
24	7 51 57.98	2 31.31	21 50 31.8	5 42.9	1.691 889	6 591	7 43.6
25	7 54 29.29	2 30.63	21 44 48.9	5 49.5	1.685 298	6 635	7 42.1
26	7 56 59.92	2 29.94	21 38 59.4	5 55.9	1.678 663	6 679	7 40.7
27	7 59 29.86	2 29.24	+21 33 3.5	6 2.1	1.671 984	6 724	7 39.3
28	8 1 59.10	2 28.55	21 27 1.4	6 8.3	1.665 260	6 768	7 37.8
29	8 4 27.65	2 27.84	21 20 53.1	6 14.2	1.658 492	6 812	7 36.3
30	8 6 55.49	2 27.13	21 14 38.9	6 20.0	1.651 680	6 857	7 34.9
Okt. 1	8 9 22.62	2 26.42	21 8 18.9	6 25.6	1.644 823	6 901	7 33.4
2	8 11 49.04	2 25.71	21 1 53.3	6 31.1	1.637 922	6 946	7 31.9
3	8 14 14.75	2 24.97	+20 55 22.2	6 36.4	1.630 976	6 991	7 30.4
4	8 16 39.72	2 24.25	20 48 45.8	6 41.6	1.623 985	7 036	7 28.8
5	8 19 3.97	2 23.50	20 42 4.2	6 46.5	1.616 949	7 081	7 27.3
6	8 21 27.47	2 22.75	20 35 17.7	6 51.3	1.609 868	7 126	7 25.7
7	8 23 50.22	2 21.99	20 28 26.4	6 56.0	1.602 742	7 171	7 24.2
8	8 26 12.21	2 21.23	20 21 30.4	7 0.4	1.595 571	7 216	7 22.6
9	8 28 33.44	2 20.44	+20 14 30.0	7 4.6	1.588 355	7 261	7 21.0
10	8 30 53.88	2 19.66	20 7 25.4	7 8.7	1.581 094	7 305	7 19.4
11	8 33 13.54	2 18.86	20 0 16.7	7 12.6	1.573 789	7 349	7 17.8
12	8 35 32.40	2 18.05	19 53 4.1	7 16.2	1.566 440	7 392	7 16.1
13	8 37 50.45	2 17.23	19 45 47.9	7 19.8	1.559 048	7 435	7 14.5
14	8 40 7.68		+19 38 28.1		1.551 613		7 12.8

Mars 1947

Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Okt. 14	8 40 7.68	2 16.40	+19 38 28.1	7 23.0	1.551 613	7 477	7 12.8
15	8 42 24.08	2 15.57	19 31 5.1	7 26.1	1.544 136	7 518	7 11.2
16	8 44 39.65	2 14.72	19 23 39.0	7 29.0	1.536 618	7 559	7 9.5
17	8 46 54.37	2 13.88	19 16 10.0	7 31.8	1.529 059	7 599	7 7.8
18	8 49 8.25	2 13.03	19 8 38.2	7 34.3	1.521 460	7 637	7 6.1
19	8 51 21.28	2 12.16	19 1 3.9	7 36.6	1.513 823	7 677	7 4.3
20	8 53 33.44	2 11.30	+18 53 27.3	7 38.8	1.506 146	7 714	7 2.6
21	8 55 44.74	2 10.43	18 45 48.5	7 40.8	1.498 432	7 751	7 0.8
22	8 57 55.17	2 9.55	18 38 7.7	7 42.5	1.490 681	7 788	6 59.1
23	9 0 4.72	2 8.67	18 30 25.2	7 44.2	1.482 893	7 825	6 57.3
24	9 2 13.39	2 7.78	18 22 41.0	7 45.6	1.475 068	7 861	6 55.5
25	9 4 21.17	2 6.89	18 14 55.4	7 46.8	1.467 207	7 895	6 53.7
26	9 6 28.06	2 5.98	+18 7 8.6	7 47.9	1.459 312	7 931	6 51.8
27	9 8 34.04	2 5.08	17 59 20.7	7 48.7	1.451 381	7 965	6 50.0
28	9 10 39.12	2 4.17	17 51 32.0	7 49.4	1.443 416	7 999	6 48.1
29	9 12 43.29	2 3.24	17 43 42.6	7 50.0	1.435 417	8 033	6 46.3
30	9 14 46.53	2 2.32	17 35 52.6	7 50.2	1.427 384	8 066	6 44.4
31	9 16 48.85	2 1.37	17 28 2.4	7 50.3	1.419 318	8 100	6 42.5
Nov. 1	9 18 50.22	2 0.42	+17 20 12.1	7 50.2	1.411 218	8 132	6 40.5
2	9 20 50.64	1 59.47	17 12 21.9	7 49.9	1.403 086	8 165	6 38.6
3	9 22 50.11	1 58.48	17 4 32.0	7 49.4	1.394 921	8 198	6 36.7
4	9 24 48.59	1 57.50	16 56 42.6	7 48.7	1.386 723	8 229	6 34.7
5	9 26 46.09	1 56.50	16 48 53.9	7 47.7	1.378 494	8 260	6 32.7
6	9 28 42.59	1 55.48	16 41 6.2	7 46.4	1.370 234	8 291	6 30.7
7	9 30 38.07	1 54.43	+16 33 19.8	7 45.1	1.361 943	8 320	6 28.7
8	9 32 32.50	1 53.39	16 25 34.7	7 43.4	1.353 623	8 350	6 26.6
9	9 34 25.89	1 52.32	16 17 51.3	7 41.5	1.345 273	8 377	6 24.6
10	9 36 18.21	1 51.24	16 10 9.8	7 39.3	1.336 896	8 404	6 22.5
11	9 38 9.45	1 50.14	16 2 30.5	7 37.0	1.328 492	8 429	6 20.4
12	9 39 59.59	1 49.03	15 54 53.5	7 34.3	1.320 063	8 453	6 18.3
13	9 41 48.62	1 47.90	+15 47 19.2	7 31.5	1.311 610	8 476	6 16.2
14	9 43 36.52	1 46.75	15 39 47.7	7 28.4	1.303 134	8 498	6 14.0
15	9 45 23.27	1 45.59	15 32 19.3	7 25.1	1.294 636	8 518	6 11.9
16	9 47 8.86	1 44.42	15 24 54.2	7 21.6	1.286 118	8 537	6 9.7
17	9 48 53.28	1 43.24	15 17 32.6	7 17.8	1.277 581	8 555	6 7.5
18	9 50 36.52	1 42.03	15 10 14.8	7 13.8	1.269 026	8 571	6 5.3
19	9 52 18.55	1 40.82	+15 3 1.0	7 9.6	1.260 455	8 587	6 3.0
20	9 53 59.37	1 39.58	14 55 51.4	7 5.1	1.251 868	8 602	6 0.8
21	9 55 38.95	1 38.34	14 48 46.3	7 0.5	1.243 266	8 614	5 58.5
22	9 57 17.29	1 37.07	14 41 45.8	6 55.5	1.234 652	8 627	5 56.2
23	9 58 54.36	1 35.79	14 34 50.3	6 50.4	1.226 025	8 637	5 53.8
24	10 0 30.15		+14 27 59.9		1.217 388		5 51.5

Tag	0h Weltzeit: Scheinbare Rektaszension		0h Weltzeit: Scheinbare Deklination		0h Weltzeit: Δ		Obere Kulmination in Greenwich
1947	h m s	m s	° ′ ″	′ ″			h m
Nov. 24	10 0 30.15	1 34.49	+14 27 59.9	6 45.1	1.217 388	8 646	5 51.5
25	10 2 4.64	1 33.18	14 21 14.8	6 39.4	1.208 742	8 656	5 49.1
26	10 3 37.82	1 31.84	14 14 35.4	6 33.6	1.200 086	8 662	5 46.7
27	10 5 9.66	1 30.48	14 8 1.8	6 27.5	1.191 424	8 669	5 44.3
28	10 6 40.14	1 29.11	14 1 34.3	6 21.2	1.182 755	8 675	5 41.9
29	10 8 9.25	1 27.71	13 55 13.1	6 14.6	1.174 080	8 679	5 39.4
30	10 9 36.96	1 26.28	+13 48 58.5	6 7.8	1.165 401	8 683	5 36.9
Dez. 1	10 11 3.24	1 24.82	13 42 50.7	6 0.6	1.156 718	8 685	5 34.4
2	10 12 28.06	1 23.34	13 36 50.1	5 53.2	1.148 033	8 686	5 31.9
3	10 13 51.40	1 21.82	13 30 56.9	5 45.5	1.139 347	8 685	5 29.4
4	10 15 13.22	1 20.28	13 25 11.4	5 37.5	1.130 662	8 684	5 26.8
5	10 16 33.50	1 18.70	13 19 33.9	5 29.2	1.121 978	8 679	5 24.2
6	10 17 52.20	1 17.09	+13 14 4.7	5 20.6	1.113 299	8 674	5 21.5
7	10 19 9.29	1 15.44	13 8 44.1	5 11.6	1.104 625	8 667	5 18.9
8	10 20 24.73	1 13.76	13 3 32.5	5 2.5	1.095 958	8 657	5 16.2
9	10 21 38.49	1 12.05	12 58 30.0	4 52.9	1.087 301	8 645	5 13.5
10	10 22 50.54	1 10.30	12 53 37.1	4 43.0	1.078 656	8 631	5 10.7
11	10 24 0.84	1 8.53	12 48 54.1	4 33.0	1.070 025	8 614	5 8.0
12	10 25 9.37	1 6.71	+12 44 21.1	4 22.6	1.061 411	8 596	5 5.2
13	10 26 16.08	1 4.86	12 39 58.5	4 11.8	1.052 815	8 575	5 2.3
14	10 27 20.94	1 2.99	12 35 46.7	4 0.9	1.044 240	8 552	4 59.5
15	10 28 23.93	1 1.08	12 31 45.8	3 49.6	1.035 688	8 526	4 56.6
16	10 29 25.01	0 59.13	12 27 56.2	3 38.1	1.027 162	8 497	4 53.6
17	10 30 24.14	0 57.15	12 24 18.1	3 26.2	1.018 665	8 467	4 50.7
18	10 31 21.29	0 55.13	+12 20 51.9	3 14.2	1.010 198	8 434	4 47.7
19	10 32 16.42	0 53.09	12 17 37.7	3 1.9	1.001 764	8 398	4 44.7
20	10 33 9.51	0 51.00	12 14 35.8	2 49.2	0.993 366	8 361	4 41.6
21	10 34 0.51	0 48.88	12 11 46.6	2 36.3	0.985 005	8 320	4 38.5
22	10 34 49.39	0 46.72	12 9 10.3	2 23.2	0.976 685	8 277	4 35.4
23	10 35 36.11	0 44.54	12 6 47.1	2 9.7	0.968 408	8 232	4 32.2
24	10 36 20.65	0 42.30	+12 4 37.4	1 56.2	0.960 176	8 184	4 29.0
25	10 37 2.95	0 40.03	12 2 41.2	1 42.3	0.951 992	8 134	4 25.8
26	10 37 42.98	0 37.73	12 0 58.9	1 28.1	0.943 858	8 081	4 22.5
27	10 38 20.71	0 35.37	11 59 30.8	1 13.7	0.935 777	8 026	4 19.2
28	10 38 56.08	0 32.97	11 58 17.1	0 59.0	0.927 751	7 968	4 15.9
29	10 39 29.05	0 30.53	11 57 18.1	0 44.1	0.919 783	7 908	4 12.5
30	10 39 59.58	0 28.04	+11 56 34.0	0 28.8	0.911 875	7 844	4 9.0
31	10 40 27.62	0 25.51	11 56 5.2	0 13.3	0.904 031	7 779	4 5.5
32	10 40 53.13		+11 55 51.9		0.896 252		4 2.0

Tag	0ʰ Weltzeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		Δ		
1947	h m s	s	° ′ ″	′ ″			h m
Jan. 0	15 12 3.70	43.05	−16 50 18.9	2 46.0	6.023 476	12 389	8 35.6
1	15 12 46.75	42.72	16 53 4.9	2 43.9	6.011 087	12 541	8 32.4
2	15 13 29.47	42.39	16 55 48.8	2 41.8	5.998 546	12 687	8 29.2
3	15 14 11.86	42.03	16 58 30.6	2 39.8	5.985 859	12 833	8 26.0
4	15 14 53.89	41.68	17 1 10.4	2 37.5	5.973 026	12 976	8 22.7
5	15 15 35.57	41.33	17 3 47.9	2 35.4	5.960 050	13 116	8 19.5
6	15 16 16.90	40.96	−17 6 23.3	2 33.3	5.946 934	13 255	8 16.2
7	15 16 57.86	40.58	17 8 56.6	2 31.1	5.933 679	13 390	8 13.0
8	15 17 38.44	40.21	17 11 27.7	2 28.9	5.920 289	13 524	8 9.7
9	15 18 18.65	39.81	17 13 56.6	2 26.8	5.906 765	13 656	8 6.4
10	15 18 58.46	39.43	17 16 23.4	2 24.7	5.893 109	13 785	8 3.2
11	15 19 37.89	39.02	17 18 48.1	2 22.4	5.879 324	13 911	7 59.9
12	15 20 16.91	38.61	−17 21 10.5	2 20.2	5.865 413	14 036	7 56.6
13	15 20 55.52	38.19	17 23 30.7	2 18.0	5.851 377	14 159	7 53.3
14	15 21 33.71	37.76	17 25 48.7	2 15.8	5.837 218	14 276	7 50.0
15	15 22 11.47	37.33	17 28 4.5	2 13.5	5.822 942	14 394	7 46.7
16	15 22 48.80	36.89	17 30 18.0	2 11.3	5.808 548	14 506	7 43.4
17	15 23 25.69	36.43	17 32 29.3	2 8.9	5.794 042	14 617	7 40.1
18	15 24 2.12	35.97	−17 34 38.2	2 6.7	5.779 425	14 724	7 36.7
19	15 24 38.09	35.50	17 36 44.9	2 4.4	5.764 701	14 828	7 33.4
20	15 25 13.59	35.02	17 38 49.3	2 2.1	5.749 873	14 929	7 30.1
21	15 25 48.61	34.54	17 40 51.4	1 59.8	5.734 944	15 026	7 26.7
22	15 26 23.15	34.04	17 42 51.2	1 57.4	5.719 918	15 119	7 23.3
23	15 26 57.19	33.54	17 44 48.6	1 55.1	5.704 799	15 211	7 20.0
24	15 27 30.73	33.03	−17 46 43.7	1 52.7	5.689 588	15 297	7 16.6
25	15 28 3.76	32.52	17 48 36.4	1 50.4	5.674 291	15 380	7 13.2
26	15 28 36.28	31.98	17 50 26.8	1 48.0	5.658 911	15 458	7 9.8
27	15 29 8.26	31.46	17 52 14.8	1 45.6	5.643 453	15 535	7 6.4
28	15 29 39.72	30.91	17 54 0.4	1 43.2	5.627 918	15 606	7 3.0
29	15 30 10.63	30.37	17 55 43.6	1 40.9	5.612 312	15 675	6 59.6
30	15 30 41.00	29.81	−17 57 24.5	1 38.4	5.596 637	15 739	6 56.1
31	15 31 10.81	29.25	17 59 2.9	1 36.1	5.580 898	15 799	6 52.7
Febr. 1	15 31 40.06	28.68	18 0 39.0	1 33.7	5.565 099	15 856	6 49.3
2	15 32 8.74	28.11	18 2 12.7	1 31.3	5.549 243	15 910	6 45.8
3	15 32 36.85	27.53	18 3 44.0	1 28.9	5.533 333	15 959	6 42.3
4	15 33 4.38	26.94	18 5 12.9	1 26.5	5.517 374	16 007	6 38.9
5	15 33 31.32	26.35	−18 6 39.4	1 24.1	5.501 367	16 050	6 35.4
6	15 33 57.67	25.75	18 8 3.5	1 21.7	5.485 317	16 089	6 31.9
7	15 34 23.42	25.14	18 9 25.2	1 19.3	5.469 228	16 126	6 28.3
8	15 34 48.56	24.52	18 10 44.5	1 16.8	5.453 102	16 159	6 24.8
9	15 35 13.08	23.90	18 12 1.3	1 14.5	5.436 943	16 188	6 21.3
10	15 35 36.98		−18 13 15.8		5.420 755		6 17.8

Tag	0h Weltzeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		Δ		
1947	h m s	s	° ′ ″	″			h m
Febr. 10	15 35 36.98	23.27	−18 13 15.8	72.0	5.420 755	16 214	6 17.8
11	15 36 0.25	22.63	18 14 27.8	69.6	5.404 541	16 236	6 14.2
12	15 36 22.88	21.99	18 15 37.4	67.1	5.388 305	16 253	6 10.7
13	15 36 44.87	21.33	18 16 44.5	64.7	5.372 052	16 266	6 7.1
14	15 37 6.20	20.66	18 17 49.2	62.2	5.355 786	16 277	6 3.5
15	15 37 26.86	20.00	18 18 51.4	59.7	5.339 509	16 282	5 59.9
16	15 37 46.86	19.32	−18 19 51.1	57.3	5.323 227	16 282	5 56.3
17	15 38 6.18	18.64	18 20 48.4	54.8	5.306 945	16 280	5 52.7
18	15 38 24.82	17.95	18 21 43.2	52.2	5.290 665	16 272	5 49.1
19	15 38 42.77	17.26	18 22 35.4	49.7	5.274 393	16 259	5 45.4
20	15 39 0.03	16.55	18 23 25.1	47.3	5.258 134	16 242	5 41.8
21	15 39 16.58	15.84	18 24 12.4	44.8	5.241 892	16 221	5 38.1
22	15 39 32.42	15.13	−18 24 57.2	42.2	5.225 671	16 195	5 34.5
23	15 39 47.55	14.41	18 25 39.4	39.7	5.209 476	16 163	5 30.8
24	15 40 1.96	13.68	18 26 19.1	37.2	5.193 313	16 128	5 27.1
25	15 40 15.64	12.96	18 26 56.3	34.7	5.177 185	16 087	5 23.4
26	15 40 28.60	12.22	18 27 31.0	32.2	5.161 098	16 043	5 19.7
27	15 40 40.82	11.49	18 28 3.2	29.7	5.145 055	15 993	5 15.9
28	15 40 52.31	10.75	−18 28 32.9	27.3	5.129 062	15 939	5 12.2
März 1	15 41 3.06	10.01	18 29 0.2	24.7	5.113 123	15 880	5 8.4
2	15 41 13.07	9.26	18 29 24.9	22.2	5.097 243	15 818	5 4.7
3	15 41 22.33	8.52	18 29 47.1	19.7	5.081 425	15 749	5 0.9
4	15 41 30.85	7.76	18 30 6.8	17.2	5.065 676	15 679	4 57.1
5	15 41 38.61	7.01	18 30 24.0	14.8	5.049 997	15 604	4 53.3
6	15 41 45.62	6.26	−18 30 38.8	12.3	5.034 393	15 524	4 49.5
7	15 41 51.88	5.49	18 30 51.1	9.7	5.018 869	15 440	4 45.6
8	15 41 57.37	4.73	18 31 0.8	7.3	5.003 429	15 353	4 41.8
9	15 42 2.10	3.97	18 31 8.1	4.8	4.988 076	15 260	4 37.9
10	15 42 6.07	3.20	18 31 12.9	2.3	4.972 816	15 163	4 34.1
11	15 42 9.27	2.42	18 31 15.2	0.1	4.957 653	15 062	4 30.2
12	15 42 11.69	1.66	−18 31 15.1	2.7	4.942 591	14 956	4 26.3
13	15 42 13.35	0.88	18 31 12.4	5.1	4.927 635	14 846	4 22.4
14	15 42 14.23	0.11	18 31 7.3	7.7	4.912 789	14 730	4 18.5
15	15 42 14.34	0.67	18 30 59.6	10.1	4.898 059	14 612	4 14.5
16	15 42 13.67	1.45	18 30 49.5	12.7	4.883 447	14 485	4 10.6
17	15 42 12.22	2.23	18 30 36.8	15.1	4.868 962	14 357	4 6.6
18	15 42 9.99	3.00	−18 30 21.7	17.5	4.854 605	14 222	4 2.7
19	15 42 6.99	3.78	18 30 4.2	20.1	4.840 383	14 082	3 58.7
20	15 42 3.21	4.55	18 29 44.1	22.6	4.826 301	13 939	3 54.7
21	15 41 58.66	5.33	18 29 21.5	25.0	4.812 362	13 790	3 50.7
22	15 41 53.33	6.09	18 28 56.5	27.5	4.798 572	13 635	3 46.6
23	15 41 47.24		−18 28 29.0		4.784 937		3 42.6

Tag	0ʰ Weltzeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		Δ		
1947	h m s	s	° ′ ″	′ ″			h m
März 23	15 41 47.24	6.86	—18 28 29.0	0 29.9	4.784 937	13 477	3 42.6
24	15 41 40.38	7.63	18 27 59.1	0 32.3	4.771 460	13 311	3 38.6
25	15 41 32.75	8.38	18 27 26.8	0 34.7	4.758 149	13 145	3 34.5
26	15 41 24.37	9.12	18 26 52.1	0 37.1	4.745 004	12 971	3 30.4
27	15 41 15.25	9.88	18 26 15.0	0 39.5	4.732 033	12 794	3 26.3
28	15 41 5.37	10.62	18 25 35.5	0 41.9	4.719 239	12 611	3 22.2
29	15 40 54.75	11.35	—18 24 53.6	0 44.2	4.706 628	12 426	3 18.1
30	15 40 43.40	12.07	18 24 9.4	0 46.5	4.694 202	12 235	3 14.0
31	15 40 31.33	12.80	18 23 22.9	0 48.8	4.681 967	12 042	3 9.9
April 1	15 40 18.53	13.50	18 22 34.1	0 51.1	4.669 925	11 843	3 5.7
2	15 40 5.03	14.20	18 21 43.0	0 53.3	4.658 082	11 641	3 1.6
3	15 39 50.83	14.90	18 20 49.7	0 55.5	4.646 441	11 436	2 57.4
4	15 39 35.93	15.59	—18 19 54.2	0 57.7	4.635 005	11 227	2 53.2
5	15 39 20.34	16.27	18 18 56.5	0 59.9	4.623 778	11 015	2 49.0
6	15 39 4.07	16.93	18 17 56.6	1 2.1	4.612 763	10 797	2 44.8
7	15 38 47.14	17.59	18 16 54.5	1 4.3	4.601 966	10 577	2 40.6
8	15 38 29.55	18.25	18 15 50.2	1 6.3	4.591 389	10 353	2 36.4
9	15 38 11.30	18.89	18 14 43.9	1 8.5	4.581 036	10 124	2 32.2
10	15 37 52.41	19.51	—18 13 35.4	1 10.5	4.570 912	9 893	2 27.9
11	15 37 32.90	20.14	18 12 24.9	1 12.5	4.561 019	9 657	2 23.6
12	15 37 12.76	20.74	18 11 12.4	1 14.6	4.551 362	9 419	2 19.4
13	15 36 52.02	21.35	18 9 57.8	1 16.5	4.541 943	9 174	2 15.1
14	15 36 30.67	21.92	18 8 41.3	1 18.5	4.532 769	8 929	2 10.8
15	15 36 8.75	22.49	18 7 22.8	1 20.4	4.523 840	8 677	2 6.5
16	15 35 46.26	23.04	—18 6 2.4	1 22.2	4.515 163	8 424	2 2.2
17	15 35 23.22	23.59	18 4 40.2	1 24.1	4.506 739	8 165	1 57.9
18	15 34 59.63	24.11	18 3 16.1	1 25.9	4.498 574	7 905	1 53.6
19	15 34 35.52	24.62	18 1 50.2	1 27.6	4.490 669	7 641	1 49.2
20	15 34 10.90	25.12	18 0 22.6	1 29.2	4.483 028	7 373	1 44.9
21	15 33 45.78	25.58	17 58 53.4	1 31.0	4.475 655	7 102	1 40.6
22	15 33 20.20	26.04	—17 57 22.4	1 32.5	4.468 553	6 829	1 36.2
23	15 32 54.16	26.48	17 55 49.9	1 34.0	4.461 724	6 552	1 31.9
24	15 32 27.68	26.89	17 54 15.9	1 35.4	4.455 172	6 274	1 27.5
25	15 32 0.79	27.30	17 52 40.5	1 36.9	4.448 898	5 994	1 23.1
26	15 31 33.49	27.67	17 51 3.6	1 38.2	4.442 904	5 710	1 18.7
27	15 31 5.82	28.03	17 49 25.4	1 39.4	4.437 194	5 426	1 14.3
28	15 30 37.79	28.37	—17 47 46.0	1 40.7	4.431 768	5 140	1 9.9
29	15 30 9.42	28.69	17 46 5.3	1 41.7	4.426 628	4 853	1 5.5
30	15 29 40.73	28.99	17 44 23.6	1 42.9	4.421 775	4 563	1 1.1
Mai 1	15 29 11.74	29.27	17 42 40.7	1 43.9	4.417 212	4 273	0 56.7
2	15 28 42.47	29.53	17 40 56.8	1 44.9	4.412 939	3 981	0 52.3
3	15 28 12.94		—17 39 11.9		4.408 958		0 47.9

Tag	0h Weltzeit: Scheinbare Rektaszension		0h Weltzeit: Scheinbare Deklination		0h Weltzeit: Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Mai 3	15 28 12.94	29.77	−17 39 11.9	1 45.7	4.408 958	3 688	0 47.9
4	15 27 43.17	29.99	17 37 26.2	1 46.6	4.405 270	3 395	0 43.4
5	15 27 13.18	30.19	17 35 39.6	1 47.3	4.401 875	3 100	0 39.0
6	15 26 42.99	30.38	17 33 52.3	1 48.0	4.398 775	2 804	0 34.6
7	15 26 12.61	30.53	17 32 4.3	1 48.6	4.395 971	2 507	0 30.1
8	15 25 42.08	30.67	17 30 15.7	1 49.3	4.393 464	2 208	0 25.7
9	15 25 11.41	30.80	−17 28 26.4	1 49.7	4.391 256	1 911	0 21.3
10	15 24 40.61	30.89	17 26 36.7	1 50.0	4.389 345	1 611	0 16.8
11	15 24 9.72	30.97	17 24 46.7	1 50.5	4.387 734	1 311	0 12.4
12	15 23 38.75	31.03	17 22 56.2	1 50.7	4.386 423	1 010	0 7.9
13	15 23 7.72	31.06	17 21 5.5	1 50.9	4.385 413	710	{0 3.5 / 23 59.0}
14	15 22 36.66	31.08	17 19 14.6	1 51.0	4.384 703	409	23 54.6
15	15 22 5.58	31.07	−17 17 23.6	1 51.0	4.384 294	106	23 50.1
16	15 21 34.51	31.04	17 15 32.6	1 50.9	4.384 188	194	23 45.7
17	15 21 3.47	30.98	17 13 41.7	1 50.8	4.384 382	496	23 41.3
18	15 20 32.49	30.91	17 11 50.9	1 50.6	4.384 878	798	23 36.8
19	15 20 1.58	30.81	17 10 0.3	1 50.3	4.385 676	1 098	23 32.4
20	15 19 30.77	30.69	17 8 10.0	1 49.8	4.386 774	1 398	23 27.9
21	15 19 0.08	30.55	−17 6 20.2	1 49.4	4.388 172	1 698	23 23.5
22	15 18 29.53	30.39	17 4 30.8	1 48.8	4.389 870	1 995	23 19.0
23	15 17 59.14	30.20	17 2 42.0	1 48.1	4.391 865	2 292	23 14.6
24	15 17 28.94	29.99	17 0 53.9	1 47.3	4.394 157	2 587	23 10.2
25	15 16 58.95	29.76	16 59 6.6	1 46.5	4.396 744	2 881	23 5.8
26	15 16 29.19	29.51	16 57 20.1	1 45.6	4.399 625	3 171	23 1.3
27	15 15 59.68	29.24	−16 55 34.5	1 44.5	4.402 796	3 460	22 56.9
28	15 15 30.44	28.96	16 53 50.0	1 43.4	4.406 256	3 746	22 52.5
29	15 15 1.48	28.66	16 52 6.6	1 42.3	4.410 002	4 031	22 48.1
30	15 14 32.82	28.33	16 50 24.3	1 41.0	4.414 033	4 315	22 43.7
31	15 14 4.49	27.99	16 48 43.3	1 39.8	4.418 348	4 593	22 39.3
Juni 1	15 13 36.50	27.63	16 47 3.5	1 38.3	4.422 941	4 872	22 34.9
2	15 13 8.87	27.25	−16 45 25.2	1 36.9	4.427 813	5 146	22 30.5
3	15 12 41.62	26.87	16 43 48.3	1 35.4	4.432 959	5 420	22 26.2
4	15 12 14.75	26.46	16 42 12.9	1 33.8	4.438 379	5 690	22 21.8
5	15 11 48.29	26.04	16 40 39.1	1 32.2	4.444 069	5 959	22 17.4
6	15 11 22.25	25.60	16 39 6.9	1 30.4	4.450 028	6 223	22 13.1
7	15 10 56.65	25.15	16 37 36.5	1 28.6	4.456 251	6 487	22 8.7
8	15 10 31.50	24.68	−16 36 7.9	1 26.8	4.462 738	6 747	22 4.4
9	15 10 6.82	24.20	16 34 41.1	1 24.8	4.469 485	7 005	22 0.0
10	15 9 42.62	23.71	16 33 16.3	1 22.9	4.476 490	7 260	21 55.7
11	15 9 18.91	23.19	16 31 53.4	1 20.8	4.483 750	7 511	21 51.4
12	15 8 55.72	22.67	16 30 32.6	1 18.6	4.491 261	7 760	21 47.1
13	15 8 33.05		−16 29 14.0		4.499 021		21 42.8

Tag	0h Weltzeit Scheinbare Rektaszension			Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	s		° ′ ″	″			h m
Juni 13	15 8 33.05	22.13		—16 29 14.0	76.6	4.499 021	8 008	21 42.8
14	15 8 10.92	21.58		16 27 57.4	74.3	4.507 029	8 249	21 38.5
15	15 7 49.34	21.02		16 26 43.1	71.9	4.515 278	8 491	21 34.2
16	15 7 28.32	20.45		16 25 31.2	69.6	4.523 769	8 725	21 30.0
17	15 7 7.87	19.85		16 24 21.6	67.2	4.532 494	8 960	21 25.7
18	15 6 48.02	19.25		16 23 14.4	64.7	4.541 454	9 187	21 21.4
19	15 6 28.77	18.64		—16 22 9.7	62.2	4.550 641	9 413	21 17.2
20	15 6 10.13	18.01		16 21 7.5	59.6	4.560 054	9 635	21 13.0
21	15 5 52.12	17.38		16 20 7.9	56.9	4.569 689	9 851	21 8.8
22	15 5 34.74	16.74		16 19 11.0	54.3	4.579 540	10 062	21 4.5
23	15 5 18.00	16.09		16 18 16.7	51.6	4.589 602	10 271	21 0.3
24	15 5 1.91	15.43		16 17 25.1	48.8	4.599 873	10 475	20 56.2
25	15 4 46.48	14.76		—16 16 36.3	46.0	4.610 348	10 673	20 52.0
26	15 4 31.72	14.10		16 15 50.3	43.2	4.621 021	10 869	20 47.8
27	15 4 17.62	13.42		16 15 7.1	40.4	4.631 890	11 059	20 43.6
28	15 4 4.20	12.73		16 14 26.7	37.6	4.642 949	11 246	20 39.5
29	15 3 51.47	12.05		16 13 49.1	34.6	4.654 195	11 429	20 35.4
30	15 3 39.42	11.36		16 13 14.5	31.8	4.665 624	11 606	20 31.2
Juli 1	15 3 28.06	10.67		—16 12 42.7	28.8	4.677 230	11 781	20 27.1
2	15 3 17.39	9.96		16 12 13.9	25.9	4.689 011	11 951	20 23.0
3	15 3 7.43	9.26		16 11 48.0	22.9	4.700 962	12 117	20 18.9
4	15 2 58.17	8.56		16 11 25.1	20.0	4.713 079	12 280	20 14.9
5	15 2 49.61	7.85		16 11 5.1	17.0	4.725 359	12 437	20 10.8
6	15 2 41.76	7.14		16 10 48.1	14.0	4.737 796	12 592	20 6.8
7	15 2 34.62	6.42		—16 10 34.1	11.0	4.750 388	12 741	20 2.7
8	15 2 28.20	5.71		16 10 23.1	8.0	4.763 129	12 889	19 58.7
9	15 2 22.49	4.99		16 10 15.1	5.0	4.776 018	13 029	19 54.7
10	15 2 17.50	4.27		16 10 10.1	2.0	4.789 047	13 169	19 50.7
11	15 2 13.23	3.54		16 10 8.1	1.1	4.802 216	13 302	19 46.7
12	15 2 9.69	2.82		16 10 9.2	4.2	4.815 518	13 432	19 42.7
13	15 2 6.87	2.10		—16 10 13.4	7.2	4.828 950	13 559	19 38.7
14	15 2 4.77	1.37		16 10 20.6	10.2	4.842 509	13 680	19 34.8
15	15 2 3.40	0.63		16 10 30.8	13.3	4.856 189	13 796	19 30.8
16	15 2 2.77	0.09		16 10 44.1	16.3	4.869 985	13 910	19 26.9
17	15 2 2.86	0.82		16 11 0.4	19.4	4.883 895	14 018	19 23.0
18	15 2 3.68	1.55		16 11 19.8	22.4	4.897 913	14 120	19 19.1
19	15 2 5.23	2.29		—16 11 42.2	25.5	4.912 033	14 220	19 15.2
20	15 2 7.52	3.01		16 12 7.7	28.6	4.926 253	14 314	19 11.3
21	15 2 10.53	3.74		16 12 36.3	31.5	4.940 567	14 402	19 7.4
22	15 2 14.27	4.46		16 13 7.8	34.6	4.954 969	14 489	19 3.6
23	15 2 18.73	5.19		16 13 42.4	37.6	4.969 458	14 568	18 59.7
24	15 2 23.92			—16 14 20.0		4.984 026		18 55.9

Tag	0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Juli 24	15 2 23.92	5.90	—16 14 20.0	0 40.5	4.984 026	14 642	18 55.9
25	15 2 29.82	6.62	16 15 0.5	0 43.4	4.998 668	14 716	18 52.0
26	15 2 36.44	7.33	16 15 43.9	0 46.3	5.013 384	14 782	18 48.2
27	15 2 43.77	8.04	16 16 30.2	0 49.2	5.028 166	14 845	18 44.4
28	15 2 51.81	8.74	16 17 19.4	0 52.1	5.043 011	14 904	18 40.6
29	15 3 0.55	9.45	16 18 11.5	0 54.9	5.057 915	14 960	18 36.9
30	15 3 10.00	10.14	—16 19 6.4	0 57.8	5.072 875	15 011	18 33.1
31	15 3 20.14	10.83	16 20 4.2	1 0.5	5.087 886	15 058	18 29.3
Aug. 1	15 3 30.97	11.52	16 21 4.7	1 3.3	5.102 944	15 102	18 25.6
2	15 3 42.49	12.21	16 22 8.0	1 6.0	5.118 046	15 142	18 21.9
3	15 3 54.70	12.89	16 23 14.0	1 8.6	5.133 188	15 178	18 18.1
4	15 4 7.59	13.57	16 24 22.6	1 11.4	5.148 366	15 210	18 14.4
5	15 4 21.16	14.24	—16 25 34.0	1 14.0	5.163 576	15 238	18 10.7
6	15 4 35.40	14.91	16 26 48.0	1 16.6	5.178 814	15 265	18 7.0
7	15 4 50.31	15.58	16 28 4.6	1 19.2	5.194 079	15 285	18 3.4
8	15 5 5.89	16.24	16 29 23.8	1 21.8	5.209 364	15 305	17 59.7
9	15 5 22.13	16.90	16 30 45.6	1 24.3	5.224 669	15 318	17 56.0
10	15 5 39.03	17.56	16 32 9.9	1 26.8	5.239 987	15 328	17 52.4
11	15 5 56.59	18.21	—16 33 36.7	1 29.3	5.255 315	15 336	17 48.8
12	15 6 14.80	18.86	16 35 6.0	1 31.7	5.270 651	15 338	17 45.2
13	15 6 33.66	19.50	16 36 37.7	1 34.1	5.285 989	15 338	17 41.6
14	15 6 53.16	20.14	16 38 11.8	1 36.6	5.301 327	15 333	17 38.0
15	15 7 13.30	20.78	16 39 48.4	1 38.8	5.316 660	15 323	17 34.4
16	15 7 34.08	21.41	16 41 27.2	1 41.2	5.331 983	15 310	17 30.8
17	15 7 55.49	22.03	—16 43 8.4	1 43.5	5.347 293	15 294	17 27.2
18	15 8 17.52	22.65	16 44 51.9	1 45.7	5.362 587	15 271	17 23.6
19	15 8 40.17	23.27	16 46 37.6	1 47.9	5.377 858	15 246	17 20.1
20	15 9 3.44	23.88	16 48 25.5	1 50.1	5.393 104	15 218	17 16.6
21	15 9 27.32	24.48	16 50 15.6	1 52.2	5.408 322	15 185	17 13.0
22	15 9 51.80	25.07	16 52 7.8	1 54.3	5.423 507	15 149	17 9.5
23	15 10 16.87	25.67	—16 54 2.1	1 56.3	5.438 656	15 109	17 6.0
24	15 10 42.54	26.25	16 55 58.4	1 58.3	5.453 765	15 067	17 2.5
25	15 11 8.79	26.83	16 57 56.7	2 0.1	5.468 832	15 021	16 59.0
26	15 11 35.62	27.40	16 59 56.8	2 2.1	5.483 853	14 972	16 55.5
27	15 12 3.02	27.96	17 1 58.9	2 3.9	5.498 825	14 920	16 52.1
28	15 12 30.98	28.52	17 4 2.8	2 5.8	5.513 745	14 864	16 48.6
29	15 12 59.50	29.08	—17 6 8.6	2 7.6	5.528 609	14 806	16 45.1
30	15 13 28.58	29.63	17 8 16.2	2 9.3	5.543 415	14 746	16 41.7
31	15 13 58.21	30.17	17 10 25.5	2 10.9	5.558 161	14 681	16 38.3
Sept. 1	15 14 28.38	30.70	17 12 36.4	2 12.6	5.572 842	14 615	16 34.9
2	15 14 59.08	31.24	17 14 49.0	2 14.3	5.587 457	14 545	16 31.4
3	15 15 30.32		—17 17 3.3		5.602 002		16 28.0

Tag	0h Weltzeit: Scheinbare Rektaszension		0h Weltzeit: Scheinbare Deklination		0h Weltzeit: Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Sept. 3	15 15 30.32	31.77	—17 17 3.3	2 15.8	5.602 002	14 472	16 28.0
4	15 16 2.09	32.29	17 19 19.1	2 17.3	5.616 474	14 398	16 24.6
5	15 16 34.38	32.80	17 21 36.4	2 18.8	5.630 872	14 319	16 21.2
6	15 17 7.18	33.32	17 23 55.2	2 20.4	5.645 191	14 239	16 17.8
7	15 17 40.50	33.83	17 26 15.6	2 21.7	5.659 430	14 155	16 14.5
8	15 18 14.33	34.33	17 28 37.3	2 23.1	5.673 585	14 069	16 11.1
9	15 18 48.66	34.83	—17 31 0.4	2 24.5	5.687 654	13 978	16 7.7
10	15 19 23.49	35.32	17 33 24.9	2 25.8	5.701 632	13 885	16 4.4
11	15 19 58.81	35.82	17 35 50.7	2 27.0	5.715 517	13 790	16 1.1
12	15 20 34.63	36.29	17 38 17.7	2 28.3	5.729 307	13 691	15 57.7
13	15 21 10.92	36.77	17 40 46.0	2 29.5	5.742 998	13 588	15 54.4
14	15 21 47.69	37.25	17 43 15.5	2 30.7	5.756 586	13 482	15 51.1
15	15 22 24.94	37.71	—17 45 46.2	2 31.8	5.770 068	13 374	15 47.8
16	15 23 2.65	38.18	17 48 18.0	2 32.8	5.783 442	13 262	15 44.5
17	15 23 40.83	38.62	17 50 50.8	2 33.9	5.796 704	13 148	15 41.2
18	15 24 19.45	39.08	17 53 24.7	2 34.8	5.809 852	13 030	15 37.9
19	15 24 58.53	39.51	17 55 59.5	2 35.8	5.822 882	12 911	15 34.6
20	15 25 38.04	39.95	17 58 35.3	2 36.7	5.835 793	12 789	15 31.4
21	15 26 17.99	40.38	—18 1 12.0	2 37.5	5.848 582	12 664	15 28.1
22	15 26 58.37	40.80	18 3 49.5	2 38.3	5.861 246	12 536	15 24.8
23	15 27 39.17	41.22	18 6 27.8	2 39.0	5.873 782	12 408	15 21.6
24	15 28 20.39	41.63	18 9 6.8	2 39.9	5.886 190	12 276	15 18.3
25	15 29 2.02	42.03	18 11 46.7	2 40.5	5.898 466	12 143	15 15.1
26	15 29 44.05	42.43	18 14 27.2	2 41.1	5.910 609	12 007	15 11.9
27	15 30 26.48	42.83	—18 17 8.3	2 41.7	5.922 616	11 870	15 8.6
28	15 31 9.31	43.21	18 19 50.0	2 42.3	5.934 486	11 729	15 5.4
29	15 31 52.52	43.59	18 22 32.3	2 42.8	5.946 215	11 590	15 2.2
30	15 32 36.11	43.97	18 25 15.1	2 43.3	5.957 805	11 445	14 59.0
Okt. 1	15 33 20.08	44.35	18 27 58.4	2 43.7	5.969 250	11 300	14 55.8
2	15 34 4.43	44.71	18 30 42.1	2 44.2	5.980 550	11 153	14 52.6
3	15 34 49.14	45.08	—18 33 26.3	2 44.5	5.991 703	11 004	14 49.4
4	15 35 34.22	45.44	18 36 10.8	2 44.9	6.002 707	10 852	14 46.2
5	15 36 19.66	45.79	18 38 55.7	2 45.3	6.013 559	10 699	14 43.1
6	15 37 5.45	46.14	18 41 41.0	2 45.5	6.024 258	10 544	14 39.9
7	15 37 51.59	46.48	18 44 26.5	2 45.7	6.034 802	10 386	14 36.7
8	15 38 38.07	46.83	18 47 12.2	2 46.0	6.045 188	10 226	14 33.6
9	15 39 24.90	47.16	—18 49 58.2	2 46.1	6.055 414	10 064	14 30.4
10	15 40 12.06	47.49	18 52 44.3	2 46.3	6.065 478	9 900	14 27.3
11	15 40 59.55	47.81	18 55 30.6	2 46.4	6.075 378	9 732	14 24.2
12	15 41 47.36	48.14	18 58 17.0	2 46.5	6.085 110	9 563	14 21.0
13	15 42 35.50	48.44	19 1 3.5	2 46.5	6.094 673	9 393	14 17.9
14	15 43 23.94		—19 3 50.0		6.104 066		14 14.7

Tag	0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Okt. 14	15 43 23.94	48.76	—19 3 50.0	2 46.6	6.104 066	9 220	14 14.7
15	15 44 12.70	49.06	19 6 36.6	2 46.4	6.113 286	9 043	14 11.6
16	15 45 1.76	49.35	19 9 23.0	2 46.4	6.122 329	8 867	14 8.5
17	15 45 51.11	49.64	19 12 9.4	2 46.3	6.131 196	8 688	14 5.4
18	15 46 40.75	49.92	19 14 55.7	2 46.2	6.139 884	8 508	14 2.3
19	15 47 30.67	50.20	19 17 41.9	2 45.9	6.148 392	8 325	13 59.2
20	15 48 20.87	50.47	—19 20 27.8	2 45.7	6.156 717	8 144	13 56.1
21	15 49 11.34	50.74	19 23 13.5	2 45.5	6.164 861	7 959	13 53.0
22	15 50 2.08	50.99	19 25 59.0	2 45.1	6.172 820	7 772	13 49.9
23	15 50 53.07	51.25	19 28 44.1	2 44.8	6.180 592	7 586	13 46.8
24	15 51 44.32	51.50	19 31 28.9	2 44.5	6.188 178	7 396	13 43.8
25	15 52 35.82	51.74	19 34 13.4	2 44.0	6.195 574	7 209	13 40.7
26	15 53 27.56	51.98	—19 36 57.4	2 43.7	6.202 783	7 018	13 37.6
27	15 54 19.54	52.21	19 39 41.1	2 43.2	6.209 801	6 826	13 34.5
28	15 55 11.75	52.43	19 42 24.3	2 42.7	6.216 627	6 633	13 31.5
29	15 56 4.18	52.66	19 45 7.0	2 42.3	6.223 260	6 441	13 28.4
30	15 56 56.84	52.88	19 47 49.3	2 41.6	6.229 701	6 245	13 25.4
31	15 57 49.72	53.09	19 50 30.9	2 41.1	6.235 946	6 051	13 22.3
Nov. 1	15 58 42.81	53.30	—19 53 12.0	2 40.6	6.241 997	5 853	13 19.3
2	15 59 36.11	53.50	19 55 52.6	2 39.9	6.247 850	5 655	13 16.2
3	16 0 29.61	53.70	19 58 32.5	2 39.4	6.253 505	5 457	13 13.2
4	16 1 23.31	53.90	20 1 11.9	2 38.6	6.258 962	5 256	13 10.1
5	16 2 17.21	54.09	20 3 50.5	2 38.0	6.264 218	5 053	13 7.1
6	16 3 11.30	54.27	20 6 28.5	2 37.2	6.269 271	4 850	13 4.1
7	16 4 5.57	54.45	—20 9 5.7	2 36.6	6.274 121	4 645	13 1.0
8	16 5 0.02	54.62	20 11 42.3	2 35.7	6.278 766	4 441	12 58.0
9	16 5 54.64	54.79	20 14 18.0	2 35.0	6.283 207	4 231	12 55.0
10	16 6 49.43	54.96	20 16 53.0	2 34.1	6.287 438	4 024	12 52.0
11	16 7 44.39	55.11	20 19 27.1	2 33.3	6.291 462	3 814	12 48.9
12	16 8 39.50	55.26	20 22 0.4	2 32.4	6.295 276	3 604	12 45.9
13	16 9 34.76	55.41	—20 24 32.8	2 31.6	6.298 880	3 392	12 42.9
14	16 10 30.17	55.54	20 27 4.4	2 30.6	6.302 272	3 179	12 39.9
15	16 11 25.71	55.67	20 29 35.0	2 29.6	6.305 451	2 968	12 36.9
16	16 12 21.38	55.80	20 32 4.6	2 28.6	6.308 419	2 753	12 33.9
17	16 13 17.18	55.92	20 34 33.2	2 27.7	6.311 172	2 541	12 30.9
18	16 14 13.10	56.02	20 37 0.9	2 26.6	6.313 713	2 326	12 27.9
19	16 15 9.12	56.14	—20 39 27.5	2 25.6	6.316 039	2 110	12 24.9
20	16 16 5.26	56.23	20 41 53.1	2 24.5	6.318 149	1 897	12 21.9
21	16 17 1.49	56.33	20 44 17.6	2 23.4	6.320 046	1 682	12 18.9
22	16 17 57.82	56.42	20 46 41.0	2 22.3	6.321 728	1 466	12 15.9
23	16 18 54.24	56.51	20 49 3.3	2 21.2	6.323 194	1 251	12 12.9
24	16 19 50.75		—20 51 24.5		6.324 445		12 9.9

Tag	0ʰ Weltzeit: Scheinbare Rektaszension		0ʰ Weltzeit: Scheinbare Deklination		0ʰ Weltzeit: Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Nov. 24	16 19 50.75	56.58	−20 51 24.5	2 20.0	6.324 445	1 035	12 9.9
25	16 20 47.33	56.65	20 53 44.5	2 18.8	6.325 480	821	12 6.9
26	16 21 43.98	56.72	20 56 3.3	2 17.7	6.326 301	605	12 3.9
27	16 22 40.70	56.78	20 58 21.0	2 16.5	6.326 906	389	12 0.9
28	16 23 37.48	56.84	21 0 37.5	2 15.2	6.327 295	174	11 57.9
29	16 24 34.32	56.89	21 2 52.7	2 14.0	6.327 469	41	11 54.9
30	16 25 31.21	56.94	−21 5 6.7	2 12.8	6.327 428	259	11 52.0
Dez. 1	16 26 28.15	56.99	21 7 19.5	2 11.5	6.327 169	473	11 49.0
2	16 27 25.14	57.02	21 9 31.0	2 10.2	6.326 696	691	11 46.0
3	16 28 22.16	57.05	21 11 41.2	2 9.0	6.326 005	908	11 43.0
4	16 29 19.21	57.08	21 13 50.2	2 7.7	6.325 097	1 125	11 40.0
5	16 30 16.29	57.09	21 15 57.9	2 6.4	6.323 972	1 343	11 37.0
6	16 31 13.38	57.12	−21 18 4.3	2 5.1	6.322 629	1 561	11 34.0
7	16 32 10.50	57.12	21 20 9.4	2 3.7	6.321 068	1 778	11 31.0
8	16 33 7.62	57.12	21 22 13.1	2 2.4	6.319 290	1 999	11 28.1
9	16 34 4.74	57.12	21 24 15.5	2 0.9	6.317 291	2 215	11 25.1
10	16 35 1.86	57.10	21 26 16.4	1 59.6	6.315 076	2 435	11 22.1
11	16 35 58.96	57.09	21 28 16.0	1 58.3	6.312 641	2 653	11 19.1
12	16 36 56.05	57.06	−21 30 14.3	1 56.8	6.309 988	2 870	11 16.1
13	16 37 53.11	57.03	21 32 11.1	1 55.3	6.307 118	3 087	11 13.1
14	16 38 50.14	56.99	21 34 6.4	1 54.0	6.304 031	3 305	11 10.2
15	16 39 47.13	56.95	21 36 0.4	1 52.5	6.300 726	3 521	11 7.2
16	16 40 44.08	56.89	21 37 52.9	1 51.0	6.297 205	3 736	11 4.2
17	16 41 40.97	56.83	21 39 43.9	1 49.6	6.293 469	3 951	11 1.2
18	16 42 37.80	56.76	−21 41 33.5	1 48.2	6.289 518	4 166	10 58.2
19	16 43 34.56	56.70	21 43 21.7	1 46.6	6.285 352	4 379	10 55.2
20	16 44 31.26	56.61	21 45 8.3	1 45.2	6.280 973	4 591	10 52.2
21	16 45 27.87	56.53	21 46 53.5	1 43.6	6.276 382	4 802	10 49.2
22	16 46 24.40	56.44	21 48 37.1	1 42.2	6.271 580	5 013	10 46.2
23	16 47 20.84	56.34	21 50 19.3	1 40.7	6.266 567	5 222	10 43.2
24	16 48 17.18	56.23	−21 52 0.0	1 39.2	6.261 345	5 430	10 40.2
25	16 49 13.41	56.13	21 53 39.2	1 37.7	6.255 915	5 638	10 37.2
26	16 50 9.54	56.01	21 55 16.9	1 36.2	6.250 277	5 844	10 34.2
27	16 51 5.55	55.89	21 56 53.1	1 34.7	6.244 433	6 049	10 31.2
28	16 52 1.44	55.77	21 58 27.8	1 33.2	6.238 384	6 253	10 28.2
29	16 52 57.21	55.64	22 0 1.0	1 31.7	6.232 131	6 457	10 25.2
30	16 53 52.85	55.50	−22 1 32.7	1 30.2	6.225 674	6 660	10 22.2
31	16 54 48.35	55.36	22 3 2.9	1 28.7	6.219 014	6 863	10 19.2
32	16 55 43.71		−22 4 31.6		6.212 151		10 16.2

Tag	Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
	0h Weltzeit						
1947	h m s	s	° ′ ″	′ ″			h m
Jan. 0	8 40 1.60	16.27	+18 56 2.7	1 9.5	8.22 355	779	2 4.4
1	8 39 45.33	16.53	18 57 12.2	1 10.3	8.21 576	750	2 0.2
2	8 39 28.80	16.81	18 58 22.5	1 11.1	8.20 826	723	1 56.0
3	8 39 11.99	17.06	18 59 33.6	1 12.0	8.20 103	694	1 51.8
4	8 38 54.93	17.31	19 0 45.6	1 12.7	8.19 409	665	1 47.6
5	8 38 37.62	17.55	19 1 58.3	1 13.4	8.18 744	637	1 43.3
6	8 38 20.07	17.78	+19 3 11.7	1 14.1	8.18 107	607	1 39.1
7	8 38 2.29	18.00	19 4 25.8	1 14.7	8.17 500	578	1 34.9
8	8 37 44.29	18.22	19 5 40.5	1 15.3	8.16 922	549	1 30.7
9	8 37 26.07	18.41	19 6 55.8	1 15.9	8.16 373	518	1 26.4
10	8 37 7.66	18.60	19 8 11.7	1 16.4	8.15 855	489	1 22.2
11	8 36 49.06	18.79	19 9 28.1	1 16.8	8.15 366	458	1 18.0
12	8 36 30.27	18.96	+19 10 44.9	1 17.3	8.14 908	428	1 13.7
13	8 36 11.31	19.12	19 12 2.2	1 17.6	8.14 480	397	1 9.5
14	8 35 52.19	19.27	19 13 19.8	1 18.0	8.14 083	366	1 5.2
15	8 35 32.92	19.42	19 14 37.8	1 18.2	8.13 717	335	1 1.0
16	8 35 13.50	19.54	19 15 56.0	1 18.5	8.13 382	304	0 56.7
17	8 34 53.96	19.65	19 17 14.5	1 18.8	8.13 078	273	0 52.4
18	8 34 34.31	19.76	+19 18 33.3	1 18.8	8.12 805	241	0 48.2
19	8 34 14.55	19.86	19 19 52.1	1 19.0	8.12 564	209	0 43.9
20	8 33 54.69	19.94	19 21 11.1	1 19.1	8.12 355	178	0 39.7
21	8 33 34.75	20.00	19 22 30.2	1 19.0	8.12 177	146	0 35.4
22	8 33 14.75	20.07	19 23 49.2	1 19.0	8.12 031	114	0 31.2
23	8 32 54.68	20.11	19 25 8.2	1 19.0	8.11 917	82	0 26.9
24	8 32 34.57	20.14	+19 26 27.2	1 18.8	8.11 835	50	0 22.6
25	8 32 14.43	20.16	19 27 46.0	1 18.7	8.11 785	18	0 18.3
26	8 31 54.27	20.17	19 29 4.7	1 18.5	8.11 767	14	0 14.1
27	8 31 34.10	20.17	19 30 23.2	1 18.2	8.11 781	46	0 9.8
28	8 31 13.93	20.15	19 31 41.4	1 17.9	8.11 827	78	0 5.6
29	8 30 53.78	20.12	19 32 59.3	1 17.6	8.11 905	109	{0 1.3 23 57.0}
30	8 30 33.66	20.08	+19 34 16.9	1 17.2	8.12 014	141	23 52.8
31	8 30 13.58	20.03	19 35 34.1	1 16.8	8.12 155	173	23 48.5
Febr. 1	8 29 53.55	19.96	19 36 50.9	1 16.3	8.12 328	204	23 44.2
2	8 29 33.59	19.89	19 38 7.2	1 15.8	8.12 532	235	23 40.0
3	8 29 13.70	19.81	19 39 23.0	1 15.2	8.12 767	267	23 35.7
4	8 28 53.89	19.71	19 40 38.2	1 14.7	8.13 034	298	23 31.4
5	8 28 34.18	19.60	+19 41 52.9	1 14.1	8.13 332	329	23 27.2
6	8 28 14.58	19.49	19 43 7.0	1 13.4	8.13 661	360	23 23.0
7	8 27 55.09	19.36	19 44 20.4	1 12.8	8.14 021	390	23 18.7
8	8 27 35.73	19.23	19 45 33.2	1 12.0	8.14 411	421	23 14.4
9	8 27 16.50	19.07	19 46 45.2	1 11.3	8.14 832	451	23 10.2
10	8 26 57.43		+19 47 56.5		8.15 283		23 6.0

Tag	0h Weltzeit: Scheinbare Rektaszension		0h Weltzeit: Scheinbare Deklination		0h Weltzeit: Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	″			h m
Febr. 10	8 26 57.43	18.91	+19 47 56.5	70.5	8.15 283	482	23 6.0
11	8 26 38.52	18.75	19 49 7.0	69.7	8.15 765	511	23 1.7
12	8 26 19.77	18.56	19 50 16.7	68.8	8.16 276	542	22 57.5
13	8 26 1.21	18.37	19 51 25.5	67.9	8.16 818	571	22 53.2
14	8 25 42.84	18.17	19 52 33.4	67.1	8.17 389	601	22 49.0
15	8 25 24.67	17.95	19 53 40.5	66.1	8.17 990	630	22 44.8
16	8 25 6.72	17.73	+19 54 46.6	65.1	8.18 620	659	22 40.5
17	8 24 48.99	17.50	19 55 51.7	64.1	8.19 279	688	22 36.3
18	8 24 31.49	17.26	19 56 55.8	63.1	8.19 967	716	22 32.1
19	8 24 14.23	17.00	19 57 58.9	62.0	8.20 683	745	22 27.9
20	8 23 57.23	16.73	19 59 0.9	60.9	8.21 428	772	22 23.7
21	8 23 40.50	16.47	20 0 1.8	59.8	8.22 200	801	22 19.5
22	8 23 24.03	16.18	+20 1 1.6	58.7	8.23 001	827	22 15.3
23	8 23 7.85	15.88	20 2 0.3	57.5	8.23 828	854	22 11.1
24	8 22 51.97	15.59	20 2 57.8	56.3	8.24 682	881	22 6.9
25	8 22 36.38	15.27	20 3 54.1	55.1	8.25 563	907	22 2.7
26	8 22 21.11	14.96	20 4 49.2	53.9	8.26 470	933	21 58.5
27	8 22 6.15	14.63	20 5 43.1	52.6	8.27 403	958	21 54.3
28	8 21 51.52	14.30	+20 6 35.7	51.3	8.28 361	983	21 50.2
März 1	8 21 37.22	13.96	20 7 27.0	50.0	8.29 344	1 007	21 46.0
2	8 21 23.26	13.61	20 8 17.0	48.8	8.30 351	1 032	21 41.9
3	8 21 9.65	13.25	20 9 5.8	47.4	8.31 383	1 056	21 37.7
4	8 20 56.40	12.90	20 9 53.2	46.1	8.32 439	1 078	21 33.6
5	8 20 43.50	12.53	20 10 39.3	44.7	8.33 517	1 102	21 29.4
6	8 20 30.97	12.17	+20 11 24.0	43.3	8.34 619	1 124	21 25.3
7	8 20 18.80	11.78	20 12 7.3	42.0	8.35 743	1 146	21 21.1
8	8 20 7.02	11.40	20 12 49.3	40.6	8.36 889	1 168	21 17.0
9	8 19 55.62	11.02	20 13 29.9	39.2	8.38 057	1 189	21 12.9
10	8 19 44.60	10.62	20 14 9.1	37.7	8.39 246	1 210	21 8.8
11	8 19 33.98	10.23	20 14 46.8	36.4	8.40 456	1 231	21 4.7
12	8 19 23.75	9.82	+20 15 23.2	34.9	8.41 687	1 251	21 0.6
13	8 19 13.93	9.42	20 15 58.1	33.5	8.42 938	1 270	20 56.5
14	8 19 4.51	9.00	20 16 31.6	32.1	8.44 208	1 290	20 52.4
15	8 18 55.51	8.59	20 17 3.7	30.6	8.45 498	1 309	20 48.4
16	8 18 46.92	8.17	20 17 34.3	29.1	8.46 807	1 326	20 44.3
17	8 18 38.75	7.74	20 18 3.4	27.6	8.48 133	1 345	20 40.2
18	8 18 31.01	7.31	+20 18 31.0	26.2	8.49 478	1 362	20 36.2
19	8 18 23.70	6.87	20 18 57.2	24.7	8.50 840	1 379	20 32.1
20	8 18 16.83	6.44	20 19 21.9	23.1	8.52 219	1 396	20 28.1
21	8 18 10.39	6.00	20 19 45.0	21.7	8.53 615	1 412	20 24.1
22	8 18 4.39	5.55	20 20 6.7	20.2	8.55 027	1 427	20 20.0
23	8 17 58.84		+20 20 26.9		8.56 454		20 16.0

Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	″			h m
März 23	8 17 58.84	5.11	+20 20 26.9	18.7	8.56 454	1 442	20 16.0
24	8 17 53.73	4.66	20 20 45.6	17.2	8.57 896	1 456	20 12.0
25	8 17 49.07	4.21	20 21 2.8	15.6	8.59 352	1 471	20 8.0
26	8 17 44.86	3.76	20 21 18.4	14.1	8.60 823	1 484	20 4.0
27	8 17 41.10	3.30	20 21 32.5	12.5	8.62 307	1 497	20 0.0
28	8 17 37.80	2.84	20 21 45.0	11.1	8.63 804	1 509	19 56.1
29	8 17 34.96	2.39	+20 21 56.1	9.5	8.65 313	1 521	19 52.1
30	8 17 32.57	1.94	20 22 5.6	8.1	8.66 834	1 532	19 48.1
31	8 17 30.63	1.48	20 22 13.7	6.5	8.68 366	1 543	19 44.1
April 1	8 17 29.15	1.02	20 22 20.2	4.9	8.69 909	1 554	19 40.2
2	8 17 28.13	0.57	20 22 25.1	3.5	8.71 463	1 563	19 36.3
3	8 17 27.56	0.11	20 22 28.6	2.0	8.73 026	1 573	19 32.3
4	8 17 27.45	0.34	+20 22 30.6	0.4	8.74 599	1 582	19 28.4
5	8 17 27.79	0.79	20 22 31.0	1.0	8.76 181	1 590	19 24.5
6	8 17 28.58	1.25	20 22 30.0	2.6	8.77 771	1 598	19 20.6
7	8 17 29.83	1.71	20 22 27.4	4.1	8.79 369	1 606	19 16.7
8	8 17 31.54	2.15	20 22 23.3	5.5	8.80 975	1 613	19 12.8
9	8 17 33.69	2.61	20 22 17.8	7.1	8.82 588	1 620	19 8.9
10	8 17 36.30	3.06	+20 22 10.7	8.6	8.84 208	1 626	19 5.0
11	8 17 39.36	3.51	20 22 2.1	10.0	8.85 834	1 632	19 1.1
12	8 17 42.87	3.96	20 21 52.1	11.5	8.87 466	1 637	18 57.2
13	8 17 46.83	4.41	20 21 40.6	13.0	8.89 103	1 642	18 53.4
14	8 17 51.24	4.85	20 21 27.6	14.5	8.90 745	1 647	18 49.5
15	8 17 56.09	5.31	20 21 13.1	16.0	8.92 392	1 650	18 45.7
16	8 18 1.40	5.75	+20 20 57.1	17.4	8.94 042	1 654	18 41.8
17	8 18 7.15	6.19	20 20 39.7	18.9	8.95 696	1 657	18 38.0
18	8 18 13.34	6.64	20 20 20.8	20.4	8.97 353	1 659	18 34.2
19	8 18 19.98	7.07	20 20 0.4	21.8	8.99 012	1 661	18 30.4
20	8 18 27.05	7.52	20 19 38.6	23.3	9.00 673	1 663	18 26.6
21	8 18 34.57	7.95	20 19 15.3	24.8	9.02 336	1 664	18 22.8
22	8 18 42.52	8.39	+20 18 50.5	26.2	9.04 000	1 665	18 19.0
23	8 18 50.91	8.81	20 18 24.3	27.6	9.05 665	1 664	18 15.2
24	8 18 59.72	9.25	20 17 56.7	29.1	9.07 329	1 664	18 11.4
25	8 19 8.97	9.67	20 17 27.6	30.5	9.08 993	1 663	18 7.6
26	8 19 18.64	10.09	20 16 57.1	31.9	9.10 656	1 662	18 3.9
27	8 19 28.73	10.51	20 16 25.2	33.4	9.12 318	1 660	18 0.1
28	8 19 39.24	10.92	+20 15 51.8	34.8	9.13 978	1 657	17 56.3
29	8 19 50.16	11.33	20 15 17.0	36.1	9.15 635	1 655	17 52.6
30	8 20 1.49	11.73	20 14 40.9	37.6	9.17 290	1 652	17 48.9
Mai 1	8 20 13.22	12.14	20 14 3.3	38.9	9.18 942	1 649	17 45.1
2	8 20 25.36	12.54	20 13 24.4	40.3	9.20 591	1 644	17 41.4
3	8 20 37.90		+20 12 44.1		9.22 235		17 37.7

Tag	0h Weltzeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		Δ		
1947	h m s	s	° ′ ″	′ ″			h m
Mai 3	8 20 37.90	12.93	+20 12 44.1	0 41.7	9.22 235	1 641	17 37.7
4	8 20 50.83	13.33	20 12 2.4	0 43.1	9.23 876	1 636	17 34.0
5	8 21 4.16	13.71	20 11 19.3	0 44.4	9.25 512	1 630	17 30.3
6	8 21 17.87	14.10	20 10 34.9	0 45.7	9.27 142	1 626	17 26.6
7	8 21 31.97	14.48	20 9 49.2	0 47.1	9.28 768	1 619	17 22.9
8	8 21 46.45	14.85	20 9 2.1	0 48.4	9.30 387	1 614	17 19.2
9	8 22 1.30	15.23	+20 8 13.7	0 49.7	9.32 001	1 607	17 15.5
10	8 22 16.53	15.60	20 7 24.0	0 51.0	9.33 608	1 600	17 11.8
11	8 22 32.13	15.96	20 6 33.0	0 52.4	9.35 208	1 594	17 8.2
12	8 22 48.09	16.33	20 5 40.6	0 53.6	9.36 802	1 585	17 4.5
13	8 23 4.42	16.69	20 4 47.0	0 55.0	9.38 387	1 578	17 0.8
14	8 23 21.11	17.05	20 3 52.0	0 56.2	9.39 965	1 569	16 57.2
15	8 23 38.16	17.40	+20 2 55.8	0 57.6	9.41 534	1 561	16 53.6
16	8 23 55.56	17.74	20 1 58.2	0 58.8	9.43 095	1 551	16 49.9
17	8 24 13.30	18.09	20 0 59.4	1 0.0	9.44 646	1 542	16 46.3
18	8 24 31.39	18.43	19 59 59.4	1 1.4	9.46 188	1 532	16 42.6
19	8 24 49.82	18.77	19 58 58.0	1 2.6	9.47 720	1 522	16 39.0
20	8 25 8.59	19.10	19 57 55.4	1 3.8	9.49 242	1 512	16 35.4
21	8 25 27.69	19.43	+19 56 51.6	1 5.1	9.50 754	1 500	16 31.8
22	8 25 47.12	19.75	19 55 46.5	1 6.3	9.52 254	1 489	16 28.2
23	8 26 6.87	20.08	19 54 40.2	1 7.5	9.53 743	1 477	16 24.6
24	8 26 26.95	20.38	19 53 32.7	1 8.7	9.55 220	1 465	16 21.0
25	8 26 47.33	20.69	19 52 24.0	1 10.0	9.56 685	1 452	16 17.4
26	8 27 8.02	21.00	19 51 14.0	1 11.1	9.58 137	1 440	16 13.8
27	8 27 29.02	21.29	+19 50 2.9	1 12.3	9.59 577	1 427	16 10.2
28	8 27 50.31	21.58	19 48 50.6	1 13.5	9.61 004	1 414	16 6.7
29	8 28 11.89	21.87	19 47 37.1	1 14.6	9.62 418	1 400	16 3.1
30	8 28 33.76	22.16	19 46 22.5	1 15.8	9.63 818	1 386	15 59.5
31	8 28 55.92	22.44	19 45 6.7	1 16.9	9.65 204	1 372	15 56.0
Juni 1	8 29 18.36	22.71	19 43 49.8	1 18.0	9.66 576	1 357	15 52.4
2	8 29 41.07	22.98	+19 42 31.8	1 19.1	9.67 933	1 344	15 48.9
3	8 30 4.05	23.25	19 41 12.7	1 20.2	9.69 277	1 328	15 45.3
4	8 30 27.30	23.51	19 39 52.5	1 21.4	9.70 605	1 313	15 41.8
5	8 30 50.81	23.77	19 38 31.1	1 22.4	9.71 918	1 298	15 38.2
6	8 31 14.58	24.02	19 37 8.7	1 23.5	9.73 216	1 282	15 34.7
7	8 31 38.60	24.27	19 35 45.2	1 24.6	9.74 498	1 266	15 31.2
8	8 32 2.87	24.51	+19 34 20.6	1 25.7	9.75 764	1 250	15 27.6
9	8 32 27.38	24.76	19 32 54.9	1 26.7	9.77 014	1 234	15 24.1
10	8 32 52.14	24.99	19 31 28.2	1 27.7	9.78 248	1 217	15 20.6
11	8 33 17.13	25.23	19 30 0.5	1 28.8	9.79 465	1 201	15 17.1
12	8 33 42.36	25.45	19 28 31.7	1 29.8	9.80 666	1 183	15 13.6
13	8 34 7.81		+19 27 1.9		9.81 849		15 10.1

Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Juni 13	8 34 7.81	25.68	+19 27 1.9	1 30.8	9.81 849	1 166	15 10.1
14	8 34 33.49	25.90	19 25 31.1	1 31.8	9.83 015	1 148	15 6.6
15	8 34 59.39	26.12	19 23 59.3	1 32.8	9.84 163	1 130	15 3.1
16	8 35 25.51	26.32	19 22 26.5	1 33.8	9.85 293	1 112	14 59.6
17	8 35 51.83	26.54	19 20 52.7	1 34.8	9.86 405	1 093	14 56.1
18	8 36 18.37	26.74	19 19 17.9	1 35.7	9.87 498	1 075	14 52.6
19	8 36 45.11	26.93	+19 17 42.2	1 36.7	9.88 573	1 056	14 49.1
20	8 37 12.04	27.12	19 16 5.5	1 37.6	9.89 629	1 036	14 45.6
21	8 37 39.16	27.32	19 14 27.9	1 38.6	9.90 665	1 017	14 42.1
22	8 38 6.48	27.49	19 12 49.3	1 39.5	9.91 682	998	14 38.6
23	8 38 33.97	27.67	19 11 9.8	1 40.3	9.92 680	978	14 35.2
24	8 39 1.64	27.85	19 9 29.5	1 41.3	9.93 658	958	14 31.7
25	8 39 29.49	28.01	+19 7 48.2	1 42.1	9.94 616	937	14 28.2
26	8 39 57.50	28.17	19 6 6.1	1 42.9	9.95 553	918	14 24.8
27	8 40 25.67	28.33	19 4 23.2	1 43.9	9.96 471	897	14 21.3
28	8 40 54.00	28.48	19 2 39.3	1 44.6	9.97 368	876	14 17.9
29	8 41 22.48	28.63	19 0 54.7	1 45.4	9.98 244	856	14 14.4
30	8 41 51.11	28.78	18 59 9.3	1 46.3	9.99 100	835	14 10.9
Juli 1	8 42 19.89	28.92	+18 57 23.0	1 47.1	9.99 935	814	14 7.5
2	8 42 48.81	29.05	18 55 35.9	1 47.8	10.00 749	793	14 4.0
3	8 43 17.86	29.19	18 53 48.1	1 48.6	10.01 542	772	14 0.6
4	8 43 47.05	29.31	18 51 59.5	1 49.4	10.02 314	750	13 57.1
5	8 44 16.36	29.44	18 50 10.1	1 50.1	10.03 064	729	13 53.7
6	8 44 45.80	29.56	18 48 20.0	1 50.8	10.03 793	707	13 50.2
7	8 45 15.36	29.67	+18 46 29.2	1 51.5	10.04 500	686	13 46.8
8	8 45 45.03	29.79	18 44 37.7	1 52.2	10.05 186	663	13 43.4
9	8 46 14.82	29.90	18 42 45.5	1 53.0	10.05 849	642	13 39.9
10	8 46 44.72	30.00	18 40 52.5	1 53.6	10.06 491	619	13 36.5
11	8 47 14.72	30.10	18 38 58.9	1 54.2	10.07 110	597	13 33.1
12	8 47 44.82	30.19	18 37 4.7	1 55.0	10.07 707	575	13 29.6
13	8 48 15.01	30.29	+18 35 9.7	1 55.6	10.08 282	552	13 26.2
14	8 48 45.30	30.38	18 33 14.1	1 56.2	10.08 834	529	13 22.8
15	8 49 15.68	30.46	18 31 17.9	1 56.8	10.09 363	507	13 19.3
16	8 49 46.14	30.54	18 29 21.1	1 57.4	10.09 870	483	13 15.9
17	8 50 16.68	30.61	18 27 23.7	1 57.9	10.10 353	460	13 12.5
18	8 50 47.29	30.68	18 25 25.8	1 58.6	10.10 813	437	13 9.1
19	8 51 17.97	30.75	+18 23 27.2	1 59.1	10.11 250	413	13 5.6
20	8 51 48.72	30.80	18 21 28.1	1 59.6	10.11 663	390	13 2.2
21	8 52 19.52	30.86	18 19 28.5	2 0.1	10.12 053	366	12 58.8
22	8 52 50.38	30.91	18 17 28.4	2 0.6	10.12 419	343	12 55.4
23	8 53 21.29	30.95	18 15 27.8	2 1.1	10.12 762	320	12 52.0
24	8 53 52.24		+18 13 26.7		10.13 082		12 48.5

Tag	0ʰ Weltzeit: Scheinbare Rektaszension		0ʰ Weltzeit: Scheinbare Deklination		0ʰ Weltzeit: Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Juli 24	8 53 52.24	31.00	+18 13 26.7	2 1.5	10.13 082	295	12 48.5
25	8 54 23.24	31.03	18 11 25.2	2 2.0	10.13 377	272	12 45.1
26	8 54 54.27	31.06	18 9 23.2	2 2.4	10.13 649	249	12 41.7
27	8 55 25.33	31.09	18 7 20.8	2 2.8	10.13 898	225	12 38.3
28	8 55 56.42	31.12	18 5 18.0	2 3.2	10.14 123	201	12 34.9
29	8 56 27.54	31.13	18 3 14.8	2 3.6	10.14 324	177	12 31.5
30	8 56 58.67	31.15	+18 1 11.2	2 3.9	10.14 501	153	12 28.0
31	8 57 29.82	31.16	17 59 7.3	2 4.2	10.14 654	130	12 24.6
Aug. 1	8 58 0.98	31.18	17 57 3.1	2 4.6	10.14 784	106	12 21.2
2	8 58 32.16	31.18	17 54 58.5	2 4.9	10.14 890	82	12 17.8
3	8 59 3.34	31.18	17 52 53.6	2 5.1	10.14 972	59	12 14.4
4	8 59 34.52	31.17	17 50 48.5	2 5.4	10.15 031	34	12 11.0
5	9 0 5.69	31.16	+17 48 43.1	2 5.6	10.15 065	11	12 7.5
6	9 0 36.85	31.16	17 46 37.5	2 5.9	10.15 076	13	12 4.1
7	9 1 8.01	31.15	17 44 31.6	2 6.1	10.15 063	38	12 0.7
8	9 1 39.16	31.12	17 42 25.5	2 6.3	10.15 025	61	11 57.3
9	9 2 10.28	31.10	17 40 19.2	2 6.5	10.14 964	85	11 53.9
10	9 2 41.38	31.08	17 38 12.7	2 6.7	10.14 879	109	11 50.5
11	9 3 12.46	31.05	+17 36 6.0	2 6.8	10.14 770	133	11 47.1
12	9 3 43.51	31.01	17 33 59.2	2 6.9	10.14 637	158	11 43.6
13	9 4 14.52	30.97	17 31 52.3	2 7.0	10.14 479	181	11 40.2
14	9 4 45.49	30.93	17 29 45.3	2 7.1	10.14 298	205	11 36.8
15	9 5 16.42	30.88	17 27 38.2	2 7.2	10.14 093	230	11 33.4
16	9 5 47.30	30.82	17 25 31.0	2 7.2	10.13 863	254	11 30.0
17	9 6 18.12	30.76	+17 23 23.8	2 7.2	10.13 609	277	11 26.5
18	9 6 48.88	30.70	17 21 16.6	2 7.2	10.13 332	302	11 23.1
19	9 7 19.58	30.64	17 19 9.4	2 7.2	10.13 030	325	11 19.7
20	9 7 50.22	30.56	17 17 2.2	2 7.2	10.12 705	349	11 16.3
21	9 8 20.78	30.48	17 14 55.0	2 7.0	10.12 356	373	11 12.9
22	9 8 51.26	30.41	17 12 48.0	2 6.9	10.11 983	396	11 9.4
23	9 9 21.67	30.32	+17 10 41.1	2 6.8	10.11 587	420	11 6.0
24	9 9 51.99	30.23	17 8 34.3	2 6.7	10.11 167	444	11 2.6
25	9 10 22.22	30.13	17 6 27.6	2 6.5	10.10 723	466	10 59.1
26	9 10 52.35	30.04	17 4 21.1	2 6.3	10.10 257	490	10 55.7
27	9 11 22.39	29.94	17 2 14.8	2 6.1	10.09 767	512	10 52.3
28	9 11 52.33	29.83	17 0 8.7	2 5.9	10.09 255	536	10 48.8
29	9 12 22.16	29.73	+16 58 2.8	2 5.6	10.08 719	559	10 45.4
30	9 12 51.89	29.61	16 55 57.2	2 5.4	10.08 160	581	10 42.0
31	9 13 21.50	29.50	16 53 51.8	2 5.1	10.07 579	604	10 38.5
Sept. 1	9 13 51.00	29.37	16 51 46.7	2 4.7	10.06 975	627	10 35.1
2	9 14 20.37	29.25	16 49 42.0	2 4.4	10.06 348	649	10 31.6
3	9 14 49.62		+16 47 37.6		10.05 699		10 28.2

Tag	0h Weltzeit: Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Δ	Diff.	Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Sept. 3	9 14 49.62	29.13	+16 47 37.6	2 4.0	10.05 699	671	10 28.2
4	9 15 18.75	28.99	16 45 33.6	2 3.7	10.05 028	694	10 24.7
5	9 15 47.74	28.86	16 43 29.9	2 3.3	10.04 334	716	10 21.3
6	9 16 16.60	28.72	16 41 26.6	2 2.8	10.03 618	738	10 17.8
7	9 16 45.32	28.57	16 39 23.8	2 2.4	10.02 880	760	10 14.4
8	9 17 13.89	28.43	16 37 21.4	2 1.9	10.02 120	781	10 10.9
9	9 17 42.32	28.27	+16 35 19.5	2 1.4	10.01 339	804	10 7.4
10	9 18 10.59	28.12	16 33 18.1	2 0.9	10.00 535	826	10 4.0
11	9 18 38.71	27.95	16 31 17.2	2 0.3	9.99 709	847	10 0.5
12	9 19 6.66	27.79	16 29 16.9	1 59.8	9.98 862	868	9 57.0
13	9 19 34.45	27.61	16 27 17.1	1 59.2	9.97 994	889	9 53.6
14	9 20 2.06	27.44	16 25 17.9	1 58.5	9.97 105	911	9 50.1
15	9 20 29.50	27.26	+16 23 19.4	1 57.8	9.96 194	931	9 46.6
16	9 20 56.76	27.07	16 21 21.6	1 57.2	9.95 263	952	9 43.1
17	9 21 23.83	26.87	16 19 24.4	1 56.5	9.94 311	972	9 39.6
18	9 21 50.70	26.69	16 17 27.9	1 55.7	9.93 339	993	9 36.2
19	9 22 17.39	26.48	16 15 32.2	1 55.0	9.92 346	1 012	9 32.7
20	9 22 43.87	26.28	16 13 37.2	1 54.2	9.91 334	1 032	9 29.2
21	9 23 10.15	26.07	+16 11 43.0	1 53.3	9.90 302	1 052	9 25.7
22	9 23 36.22	25.86	16 9 49.7	1 52.4	9.89 250	1 070	9 22.2
23	9 24 2.08	25.65	16 7 57.3	1 51.7	9.88 180	1 090	9 18.7
24	9 24 27.73	25.43	16 6 5.6	1 50.7	9.87 090	1 109	9 15.2
25	9 24 53.16	25.20	16 4 14.9	1 49.8	9.85 981	1 127	9 11.6
26	9 25 18.36	24.97	16 2 25.1	1 48.9	9.84 854	1 145	9 8.1
27	9 25 43.33	24.74	+16 0 36.2	1 47.8	9.83 709	1 164	9 4.6
28	9 26 8.07	24.51	15 58 48.4	1 46.9	9.82 545	1 181	9 1.1
29	9 26 32.58	24.27	15 57 1.5	1 45.9	9.81 364	1 198	8 57.6
30	9 26 56.85	24.03	15 55 15.6	1 44.8	9.80 166	1 217	8 54.0
Okt. 1	9 27 20.88	23.78	15 53 30.8	1 43.8	9.78 949	1 233	8 50.5
2	9 27 44.66	23.53	15 51 47.0	1 42.7	9.77 716	1 250	8 47.0
3	9 28 8.19	23.27	+15 50 4.3	1 41.5	9.76 466	1 267	8 43.4
4	9 28 31.46	23.01	15 48 22.8	1 40.4	9.75 199	1 283	8 39.9
5	9 28 54.47	22.75	15 46 42.4	1 39.3	9.73 916	1 299	8 36.3
6	9 29 17.22	22.48	15 45 3.1	1 38.1	9.72 617	1 315	8 32.8
7	9 29 39.70	22.21	15 43 25.0	1 36.9	9.71 302	1 331	8 29.2
8	9 30 1.91	21.94	15 41 48.1	1 35.6	9.69 971	1 346	8 25.6
9	9 30 23.85	21.65	+15 40 12.5	1 34.3	9.68 625	1 361	8 22.1
10	9 30 45.50	21.36	15 38 38.2	1 33.0	9.67 264	1 376	8 18.5
11	9 31 6.86	21.08	15 37 5.2	1 31.7	9.65 888	1 391	8 14.9
12	9 31 27.94	20.77	15 35 33.5	1 30.3	9.64 497	1 405	8 11.3
13	9 31 48.71	20.48	15 34 3.2	1 29.0	9.63 092	1 418	8 7.7
14	9 32 9.19		+15 32 34.2		9.61 674		8 4.1

Tag	0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Okt. 14	9 32 9.19	20.17	+15 32 34.2	1 27.5	9.61 674	1 432	8 4.1
15	9 32 29.36	19.86	15 31 6.7	1 26.0	9.60 242	1 445	8 0.5
16	9 32 49.22	19.55	15 29 40.7	1 24.6	9.58 797	1 458	7 56.9
17	9 33 8.77	19.23	15 28 16.1	1 23.0	9.57 339	1 470	7 53.3
18	9 33 28.00	18.91	15 26 53.1	1 21.6	9.55 869	1 482	7 49.7
19	9 33 46.91	18.59	15 25 31.5	1 20.0	9.54 387	1 493	7 46.1
20	9 34 5.50	18.25	+15 24 11.5	1 18.4	9.52 894	1 505	7 42.5
21	9 34 23.75	17.92	15 22 53.1	1 16.9	9.51 389	1 516	7 38.9
22	9 34 41.67	17.58	15 21 36.2	1 15.2	9.49 873	1 526	7 35.2
23	9 34 59.25	17.25	15 20 21.0	1 13.6	9.48 347	1 535	7 31.6
24	9 35 16.50	16.90	15 19 7.4	1 11.9	9.46 812	1 546	7 27.9
25	9 35 33.40	16.55	15 17 55.5	1 10.2	9.45 266	1 555	7 24.3
26	9 35 49.95	16.21	+15 16 45.3	1 8.5	9.43 711	1 563	7 20.6
27	9 36 6.16	15.85	15 15 36.8	1 6.8	9.42 148	1 573	7 16.9
28	9 36 22.01	15.49	15 14 30.0	1 5.0	9.40 575	1 580	7 13.3
29	9 36 37.50	15.14	15 13 25.0	1 3.2	9.38 995	1 588	7 9.6
30	9 36 52.64	14.77	15 12 21.8	1 1.5	9.37 407	1 595	7 5.9
31	9 37 7.41	14.40	15 11 20.3	0 59.6	9.35 812	1 603	7 2.2
Nov. 1	9 37 21.81	14.03	+15 10 20.7	0 57.8	9.34 209	1 609	6 58.5
2	9 37 35.84	13.67	15 9 22.9	0 56.0	9.32 600	1 615	6 54.8
3	9 37 49.51	13.28	15 8 26.9	0 54.1	9.30 985	1 621	6 51.1
4	9 38 2.79	12.90	15 7 32.8	0 52.2	9.29 364	1 627	6 47.4
5	9 38 15.69	12.51	15 6 40.6	0 50.3	9.27 737	1 632	6 43.7
6	9 38 28.20	12.13	15 5 50.3	0 48.4	9.26 105	1 636	6 40.0
7	9 38 40.33	11.73	+15 5 1.9	0 46.3	9.24 469	1 640	6 36.2
8	9 38 52.06	11.33	15 4 15.6	0 44.4	9.22 829	1 644	6 32.5
9	9 39 3.39	10.94	15 3 31.2	0 42.4	9.21 185	1 648	6 28.7
10	9 39 14.33	10.53	15 2 48.8	0 40.3	9.19 537	1 650	6 25.0
11	9 39 24.86	10.12	15 2 8.5	0 38.4	9.17 887	1 652	6 21.2
12	9 39 34.98	9.72	15 1 30.1	0 36.2	9.16 235	1 654	6 17.5
13	9 39 44.70	9.30	+15 0 53.9	0 34.1	9.14 581	1 655	6 13.7
14	9 39 54.00	8.89	15 0 19.8	0 32.1	9.12 926	1 656	6 9.9
15	9 40 2.89	8.47	14 59 47.7	0 30.0	9.11 270	1 656	6 6.1
16	9 40 11.36	8.05	14 59 17.7	0 27.8	9.09 614	1 656	6 2.3
17	9 40 19.41	7.63	14 58 49.9	0 25.7	9.07 958	1 655	5 58.5
18	9 40 27.04	7.21	14 58 24.2	0 23.6	9.06 303*	1 654	5 54.7
19	9 40 34.25	6.78	+14 58 0.6	0 21.4	9.04 649	1 652	5 50.9
20	9 40 41.03	6.36	14 57 39.2	0 19.2	9.02 997	1 650	5 47.1
21	9 40 47.39	5.92	14 57 20.0	0 17.1	9.01 347	1 647	5 43.3
22	9 40 53.31	5.50	14 57 2.9	0 14.9	8.99 700	1 643	5 39.4
23	9 40 58.81	5.07	14 56 48.0	0 12.8	8.98 057	1 640	5 35.6
24	9 41 3.88		+14 56 35.2		8.96 417		5 31.7

Tag	0h Weltzeit: Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	″			h m
Nov. 24	9 41 3.88	4.64	+14 56 35.2	10.5	8.96 417	1 636	5 31.7
25	9 41 8.52	4.20	14 56 24.7	8.3	8.94 781	1 631	5 27.9
26	9 41 12.72	3.77	14 56 16.4	6.2	8.93 150	1 626	5 24.0
27	9 41 16.49	3.34	14 56 10.2	3.9	8.91 524	1 620	5 20.2
28	9 41 19.83	2.90	14 56 6.3	1.8	8.89 904	1 614	5 16.3
29	9 41 22.73	2.47	14 56 4.5	0.5	8.88 290	1 607	5 12.4
30	9 41 25.20	2.03	+14 56 5.0	2.7	8.86 683	1 600	5 8.5
Dez. 1	9 41 27.23	1.59	14 56 7.7	4.8	8.85 083	1 593	5 4.6
2	9 41 28.82	1.15	14 56 12.5	7.1	8.83 490	1 585	5 0.7
3	9 41 29.97	0.71	14 56 19.6	9.3	8.81 905	1 576	4 56.8
4	9 41 30.68	0.27	14 56 28.9	11.5	8.80 329	1 567	4 52.9
5	9 41 30.95	0.17	14 56 40.4	13.7	8.78 762	1 558	4 48.9
6	9 41 30.78	0.61	+14 56 54.1	15.9	8.77 204	1 547	4 45.0
7	9 41 30.17	1.06	14 57 10.0	18.2	8.75 657	1 537	4 41.0
8	9 41 29.11	1.49	14 57 28.2	20.4	8.74 120	1 526	4 37.1
9	9 41 27.62	1.94	14 57 48.6	22.5	8.72 594	1 514	4 33.1
10	9 41 25.68	2.37	14 58 11.1	24.7	8.71 080	1 501	4 29.2
11	9 41 23.31	2.82	14 58 35.8	27.0	8.69 579	1 489	4 25.2
12	9 41 20.49	3.25	+14 59 2.8	29.1	8.68 090	1 475	4 21.2
13	9 41 17.24	3.68	14 59 31.9	31.2	8.66 615	1 462	4 17.2
14	9 41 13.56	4.12	15 0 3.1	33.4	8.65 153	1 447	4 13.2
15	9 41 9.44	4.55	15 0 36.5	35.6	8.63 706	1 432	4 9.2
16	9 41 4.89	4.98	15 1 12.1	37.6	8.62 274	1 417	4 5.2
17	9 40 59.91	5.41	15 1 49.7	39.7	8.60 857	1 400	4 1.2
18	9 40 54.50	5.83	+15 2 29.4	41.8	8.59 457	1 384	3 57.2
19	9 40 48.67	6.25	15 3 11.2	43.9	8.58 073	1 367	3 53.2
20	9 40 42.42	6.66	15 3 55.1	45.9	8.56 706	1 350	3 49.1
21	9 40 35.76	7.08	15 4 41.0	47.9	8.55 356	1 332	3 45.1
22	9 40 28.68	7.48	15 5 28.9	49.9	8.54 024	1 313	3 41.0
23	9 40 21.20	7.89	15 6 18.8	51.8	8.52 711	1 295	3 37.0
24	9 40 13.31	8.29	+15 7 10.6	53.7	8.51 416	1 275	3 32.9
25	9 40 5.02	8.69	15 8 4.3	55.7	8.50 141	1 256	3 28.8
26	9 39 56.33	9.08	15 9 0.0	57.5	8.48 885	1 235	3 24.8
27	9 39 47.25	9.47	15 9 57.5	59.3	8.47 650	1 215	3 20.7
28	9 39 37.78	9.85	15 10 56.8	61.1	8.46 435	1 194	3 16.6
29	9 39 27.93	10.23	15 11 57.9	62.9	8.45 241	1 173	3 12.5
30	9 39 17.70	10.61	+15 13 0.8	64.7	8.44 068	1 151	3 8.4
31	9 39 7.09	10.98	15 14 5.5	66.4	8.42 917	1 128	3 4.3
32	9 38 56.11		+15 15 11.9		8.41 789		3 0.2

Tag	0h Weltzeit: Scheinbare Rektaszension		0h Weltzeit: Scheinbare Deklination		0h Weltzeit: Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	″			h m
Jan. −1	5 12 15.35	30.58	+23 4 51.9	33.5	18.21 448	1 745	22 37.1
+2	5 11 44.77	29.69	23 4 18.4	32.9	18.23 193	2 006	22 24.8
5	5 11 15.08	28.67	23 3 45.5	32.1	18.25 199	2 259	22 12.5
8	5 10 46.41	27.55	23 3 13.4	31.0	18.27 458	2 508	22 0.2
11	5 10 18.86	26.30	23 2 42.4	30.0	18.29 966	2 748	21 48.0
14	5 9 52.56	24.97	23 2 12.4	28.6	18.32 714	2 980	21 35.7
17	5 9 27.59	23.54	+23 1 43.8	27.3	18.35 694	3 203	21 23.5
20	5 9 4.05	21.99	23 1 16.5	25.6	18.38 897	3 416	21 11.4
23	5 8 42.06	20.37	23 0 50.9	23.8	18.42 313	3 618	20 59.2
26	5 8 21.69	18.66	23 0 27.1	21.9	18.45 931	3 808	20 47.1
29	5 8 3.03	16.89	23 0 5.2	20.0	18.49 739	3 984	20 35.0
Febr. 1	5 7 46.14	15.05	22 59 45.2	17.6	18.53 723	4 147	20 22.9
4	5 7 31.09	13.16	+22 59 27.6	15.4	18.57 870	4 298	20 10.9
7	5 7 17.93	11.24	22 59 12.2	13.2	18.62 168	4 440	19 58.9
10	5 7 6.69	9.27	22 58 59.0	10.7	18.66 608	4 565	19 46.9
13	5 6 57.42	7.27	22 58 48.3	8.3	18.71 173	4 678	19 35.0
16	5 6 50.15	5.21	22 58 40.0	5.7	18.75 851	4 778	19 23.1
19	5 6 44.94	3.14	22 58 34.3	3.0	18.80 629	4 865	19 11.2
22	5 6 41.80	1.05	+22 58 31.3	0.3	18.85 494	4 936	18 59.3
25	5 6 40.75	1.04	22 58 31.0	2.2	18.90 430	4 990	18 47.5
28	5 6 41.79	3.15	22 58 33.2	4.8	18.95 420	5 031	18 35.8
März 3	5 6 44.94	5.22	22 58 38.0	7.5	19.00 451	5 059	18 24.0
6	5 6 50.16	7.28	22 58 45.5	10.1	19.05 510	5 074	18 12.3
9	5 6 57.44	9.33	22 58 55.6	12.7	19.10 584	5 076	18 0.7
12	5 7 6.77	11.36	+22 59 8.3	15.0	19.15 660	5 064	17 49.0
15	5 7 18.13	13.39	22 59 23.3	17.6	19.20 724	5 040	17 37.4
18	5 7 31.52	15.36	22 59 40.9	20.1	19.25 764	5 000	17 25.9
21	5 7 46.88	17.31	23 0 1.0	22.3	19.30 764	4 950	17 14.3
24	5 8 4.19	19.23	23 0 23.3	24.5	19.35 714	4 884	17 2.8
27	5 8 23.42	21.10	23 0 47.8	26.8	19.40 598	4 805	16 51.4
30	5 8 44.52	22.89	+23 1 14.6	28.7	19.45 403	4 714	16 39.9
April 2	5 9 7.41	24.65	23 1 43.3	30.7	19.50 117	4 614	16 28.5
5	5 9 32.06	26.35	23 2 14.0	32.4	19.54 731	4 504	16 17.1
8	5 9 58.41	27.99	23 2 46.4	34.2	19.59 235	4 383	16 5.8
11	5 10 26.40	29.59	23 3 20.6	35.7	19.63 618	4 251	15 54.5
14	5 10 55.99	31.12	23 3 56.3	37.0	19.67 869	4 109	15 43.2
17	5 11 27.11	32.60	+23 4 33.3	38.5	19.71 978	3 958	15 31.9
20	5 11 59.71	34.01	23 5 11.8	39.7	19.75 936	3 798	15 20.7
23	5 12 33.72	35.33	23 5 51.5	40.8	19.79 734	3 626	15 9.4
26	5 13 9.05	36.60	23 6 32.3	41.6	19.83 360	3 447	14 58.2
29	5 13 45.65	37.77	23 7 13.9	42.4	19.86 807	3 262	14 47.0
Mai 2	5 14 23.42		+23 7 56.3		19.90 069		14 35.9

Tag		0ʰ Weltzeit						Obere Kulmination in Greenwich
		Scheinbare Rektaszension		Scheinbare Deklination		Δ		
1947		h m s	s	° ′ ″	″			h m
Mai	2	5 14 23.42	38.89	+23 7 56.3	43.1	19.90 069	3 071	14 35.9
	5	5 15 2.31	39.92	23 8 39.4	43.5	19.93 140	2 872	14 24.7
	8	5 15 42.23	40.89	23 9 22.9	44.0	19.96 012	2 669	14 13.6
	11	5 16 23.12	41.79	23 10 6.9	44.2	19.98 681	2 461	14 2.5
	14	5 17 4.91	42.63	23 10 51.1	44.4	20.01 142	2 246	13 51.4
	17	5 17 47.54	43.37	23 11 35.5	44.6	20.03 388	2 024	13 40.3
	20	5 18 30.91	44.03	+23 12 20.1	44.6	20.05 412	1 800	13 29.2
	23	5 19 14.94	44.62	23 13 4.7	44.4	20.07 212	1 571	13 18.1
	26	5 19 59.56	45.12	23 13 49.1	44.0	20.08 783	1 339	13 7.1
	29	5 20 44.68	45.54	23 14 33.1	43.6	20.10 122	1 106	12 56.0
Juni	1	5 21 30.22	45.88	23 15 16.7	43.1	20.11 228	870	12 45.0
	4	5 22 16.10	46.15	23 15 59.8	42.7	20.12 098	634	12 34.0
	7	5 23 2.25	46.35	+23 16 42.5	42.0	20.12 732	398	12 22.9
	10	5 23 48.60	46.46	23 17 24.5	41.3	20.13 130	159	12 11.9
	13	5 24 35.06	46.51	23 18 5.8	40.5	20.13 289	81	12 0.9
	16	5 25 21.57	46.47	23 18 46.3	39.6	20.13 208	322	11 49.9
	19	5 26 8.04	46.35	23 19 25.9	38.8	20.12 886	561	11 38.8
	22	5 26 54.39	46.14	23 20 4.7	37.9	20.12 325	800	11 27.8
	25	5 27 40.53	45.85	+23 20 42.6	36.7	20.11 525	1 035	11 16.8
	28	5 28 26.38	45.48	23 21 19.3	35.7	20.10 490	1 267	11 5.7
Juli	1	5 29 11.86	45.03	23 21 55.0	34.7	20.09 223	1 497	10 54.7
	4	5 29 56.89	44.51	23 22 29.7	33.5	20.07 726	1 723	10 43.6
	7	5 30 41.40	43.95	23 23 3.2	32.4	20.06 003	1 946	10 32.6
	10	5 31 25.35	43.28	23 23 35.6	31.2	20.04 057	2 167	10 21.5
	13	5 32 8.63	42.55	+23 24 6.8	30.0	20.01 890	2 384	10 10.4
	16	5 32 51.18	41.73	23 24 36.8	28.9	19.99 506	2 595	9 59.3
	19	5 33 32.91	40.83	23 25 5.7	27.7	19.96 911	2 801	9 48.2
	22	5 34 13.74	39.84	23 25 33.4	26.5	19.94 110	3 000	9 37.1
	25	5 34 53.58	38.80	23 25 59.9	25.3	19.91 110	3 195	9 26.0
	28	5 35 32.38	37.69	23 26 25.2	24.2	19.87 915	3 379	9 14.8
	31	5 36 10.07	36.51	+23 26 49.4	22.8	19.84 536	3 557	9 3.7
Aug.	3	5 36 46.58	35.27	23 27 12.2	21.9	19.80 979	3 728	8 52.5
	6	5 37 21.85	33.96	23 27 34.1	20.7	19.77 251	3 893	8 41.2
	9	5 37 55.81	32.60	23 27 54.8	19.5	19.73 358	4 047	8 30.0
	12	5 38 28.41	31.15	23 28 14.3	18.4	19.69 311	4 196	8 18.8
	15	5 38 59.56	29.62	23 28 32.7	17.3	19.65 115	4 335	8 7.5
	18	5 39 29.18	28.05	+23 28 50.0	16.2	19.60 780	4 462	7 56.2
	21	5 39 57.23	26.41	23 29 6.2	15.3	19.56 318	4 579	7 44.8
	24	5 40 23.64	24.73	23 29 21.5	14.1	19.51 739	4 687	7 33.5
	27	5 40 48.37	23.00	23 29 35.6	13.1	19.47 052	4 781	7 22.1
	30	5 41 11.37	21.22	23 29 48.7	12.3	19.42 271	4 865	7 10.7
Sept.	2	5 41 32.59		+23 30 1.0		19.37 406		6 59.2

Uranus 1947

Tag		0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947		h m s	s	° ′ ″				h m
Sept.	2	5 41 32.59	19.41	+23 30 1.0	11.3	19.37 406	4 938	6 59.2
	5	5 41 52.00	17.54	23 30 12.3	10.5	19.32 468	5 003	6 47.8
	8	5 42 9.54	15.62	23 30 22.8	9.5	19.27 465	5 055	6 36.2
	11	5 42 25.16	13.68	23 30 32.3	8.7	19.22 410	5 094	6 24.7
	14	5 42 38.84	11.69	23 30 41.0	7.7	19.17 316	5 120	6 13.1
	17	5 42 50.53	9.67	23 30 48.7	6.7	19.12 196	5 130	6 1.5
	20	5 43 0.20	7.64	+23 30 55.4	6.0	19.07 066	5 130	5 49.9
	23	5 43 7.84	5.59	23 31 1.4	5.1	19.01 936	5 115	5 38.2
	26	5 43 13.43	3.54	23 31 6.5	4.4	18.96 821	5 089	5 26.5
	29	5 43 16.97	1.49	23 31 10.9	3.7	18.91 732	5 048	5 14.8
Okt.	2	5 43 18.46	0.57	23 31 14.6	2.7	18.86 684	4 993	5 3.0
	5	5 43 17.89	2.61	23 31 17.3	1.9	18.81 691	4 928	4 51.2
	8	5 43 15.28	4.68	+23 31 19.2	1.1	18.76 763	4 849	4 39.4
	11	5 43 10.60	6.72	23 31 20.3	0.1	18.71 914	4 758	4 27.5
	14	5 43 3.88	8.74	23 31 20.4	0.5	18.67 156	4 648	4 15.6
	17	5 42 55.14	10.71	23 31 19.9	1.5	18.62 508	4 526	4 3.6
	20	5 42 44.43	12.66	23 31 18.4	2.5	18.57 982	4 392	3 51.6
	23	5 42 31.77	14.54	23 31 15.9	3.4	18.53 590	4 244	3 39.6
	26	5 42 17.23	16.37	+23 31 12.5	4.0	18.49 346	4 087	3 27.6
	29	5 42 0.86	18.15	23 31 8.5	5.1	18.45 259	3 915	3 15.5
Nov.	1	5 41 42.71	19.86	23 31 3.4	6.1	18.41 344	3 733	3 3.4
	4	5 41 22.85	21.51	23 30 57.3	7.0	18.37 611	3 540	2 51.3
	7	5 41 1.34	23.09	23 30 50.3	7.9	18.34 071	3 337	2 39.2
	10	5 40 38.25	24.57	23 30 42.4	8.9	18.30 734	3 120	2 27.0
	13	5 40 13.68	25.97	+23 30 33.5	9.9	18.27 614	2 895	2 14.8
	16	5 39 47.71	27.25	23 30 23.6	10.9	18.24 719	2 660	2 2.6
	19	5 39 20.46	28.43	23 30 12.7	11.8	18.22 059	2 414	1 50.3
	22	5 38 52.03	29.49	23 30 0.9	12.6	18.19 645	2 162	1 38.0
	25	5 38 22.54	30.44	23 29 48.3	13.5	18.17 483	1 907	1 25.7
	28	5 37 52.10	31.26	23 29 34.8	14.5	18.15 576	1 643	1 13.4
Dez.	1	5 37 20.84	31.96	+23 29 20.3	15.4	18.13 933	1 375	1 1.1
	4	5 36 48.88	32.57	23 29 4.9	16.2	18.12 558	1 102	0 48.8
	7	5 36 16.31	33.04	23 28 48.7	17.0	18.11 456	824	0 36.5
	10	5 35 43.27	33.35	23 28 31.7	17.5	18.10 632	543	0 24.1
	13	5 35 9.92	33.53	23 28 14.2	18.2	18.10 089	258	0 11.8
	16	5 34 36.39	33.57	23 27 56.0	18.8	18.09 831	26	23 55.3
	19	5 34 2.82	33.47	+23 27 37.2	19.3	18.09 857	309	23 43.0
	22	5 33 29.35	33.23	23 27 17.9	19.6	18.10 166	591	23 30.6
	25	5 32 56.12	32.86	23 26 58.3	19.8	18.10 757	870	23 18.3
	28	5 32 23.26	32.38	23 26 38.5	20.0	18.11 627	1 146	23 5.9
	31	5 31 50.88		+23 26 18.5		18.12 773		22 53.6

Tag	0h Weltzeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		Δ		
1947	h m s	s	° ′ ″	′ ″			h m
Jan. −1	12 41 53.80	4.86	−2 52 47.7	0 19.6	30.32 060	5 209	6 9.6
+2	12 41 58.66	3.71	2 53 7.3	0 12.4	30.26 851	5 207	5 57.9
5	12 42 2.37	2.58	2 53 19.7	0 5.2	30.21 644	5 193	5 46.1
8	12 42 4.95	1.44	2 53 24.9	0 2.1	30.16 451	5 165	5 34.4
11	12 42 6.39	0.30	2 53 22.8	0 9.3	30.11 286	5 122	5 22.6
14	12 42 6.69	0.85	2 53 13.5	0 16.5	30.06 164	5 066	5 10.8
17	12 42 5.84	1.98	−2 52 57.0	0 23.7	30.01 098	4 994	4 59.0
20	12 42 3.86	3.10	2 52 33.3	0 30.7	29.96 104	4 908	4 47.2
23	12 42 0.76	4.20	2 52 2.6	0 37.6	29.91 196	4 807	4 35.3
26	12 41 56.56	5.30	2 51 25.0	0 44.3	29.86 389	4 694	4 23.4
29	12 41 51.26	6.36	2 50 40.7	0 50.8	29.81 695	4 565	4 11.5
Febr. 1	12 41 44.90	7.38	2 49 49.9	0 57.1	29.77 130	4 423	3 59.6
4	12 41 37.52	8.38	−2 48 52.8	1 3.2	29.72 707	4 271	3 47.7
7	12 41 29.14	9.35	2 47 49.6	1 9.2	29.68 436	4 107	3 35.8
10	12 41 19.79	10.29	2 46 40.4	1 14.7	29.64 329	3 932	3 23.9
13	12 41 9.50	11.19	2 45 25.7	1 20.2	29.60 397	3 744	3 11.9
16	12 40 58.31	12.04	2 44 5.5	1 25.3	29.56 653	3 546	2 59.9
19	12 40 46.27	12.86	2 42 40.2	1 30.0	29.53 107	3 337	2 47.9
22	12 40 33.41	13.62	−2 41 10.2	1 34.5	29.49 770	3 119	2 35.9
25	12 40 19.79	14.32	2 39 35.7	1 38.6	29.46 651	2 891	2 23.9
28	12 40 5.47	14.98	2 37 57.1	1 42.3	29.43 760	2 654	2 11.8
März 3	12 39 50.49	15.57	2 36 14.8	1 45.6	29.41 106	2 414	1 59.8
6	12 39 34.92	16.11	2 34 29.2	1 48.6	29.38 692	2 166	1 47.8
9	12 39 18.81	16.59	2 32 40.6	1 51.2	29.36 526	1 913	1 35.7
12	12 39 2.22	17.01	−2 30 49.4	1 53.3	29.34 613	1 654	1 23.6
15	12 38 45.21	17.39	2 28 56.1	1 55.2	29.32 959	1 391	1 11.5
18	12 38 27.82	17.68	2 27 0.9	1 56.7	29.31 568	1 123	0 59.4
21	12 38 10.14	17.92	2 25 4.2	1 57.6	29.30 445	854	0 47.4
24	12 37 52.22	18.09	2 23 6.6	1 58.2	29.29 591	580	0 35.3
27	12 37 34.13	18.18	2 21 8.4	1 58.2	29.29 011	307	0 23.2
30	12 37 15.95	18.21	−2 19 10.2	1 58.0	29.28 704	35	0 11.1
April 2	12 36 57.74	18.19	2 17 12.2	1 57.2	29.28 669	236	23 55.0
5	12 36 39.55	18.09	2 15 15.0	1 55.9	29.28 905	506	23 42.8
8	12 36 21.46	17.94	2 13 19.1	1 54.6	29.29 411	773	23 30.8
11	12 36 3.52	17.73	2 11 24.5	1 52.7	29.30 184	1 038	23 18.7
14	12 35 45.79	17.46	2 9 31.8	1 50.4	29.31 222	1 301	23 6.6
17	12 35 28.33	17.12	−2 7 41.4	1 47.8	29.32 523	1 559	22 54.5
20	12 35 11.21	16.72	2 5 53.6	1 44.7	29.34 082	1 813	22 42.4
23	12 34 54.49	16.28	2 4 8.9	1 41.3	29.35 895	2 061	22 30.4
26	12 34 38.21	15.75	2 2 27.6	1 37.5	29.37 956	2 300	22 18.3
29	12 34 22.46	15.18	2 0 50.1	1 33.4	29.40 256	2 534	22 6.2
Mai 2	12 34 7.28		−1 59 16.7		29.42 790		21 54.2

Neptun 1947

Tag		0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947		h m s	s	° ′ ″	′ ″			h m
Mai	2	12 34 7.28	14.57	—1 59 16.7	1 29.0	29.42 790	2 758	21 54.2
	5	12 33 52.71	13.91	1 57 47.7	1 24.4	29.45 548	2 974	21 42.2
	8	12 33 38.80	13.21	1 56 23.3	1 19.4	29.48 522	3 182	21 30.1
	11	12 33 25.59	12.45	1 55 3.9	1 14.3	29.51 704	3 381	21 18.1
	14	12 33 13.14	11.67	1 53 49.6	1 8.8	29.55 085	3 573	21 6.1
	17	12 33 1.47	10.84	1 52 40.8	1 3.1	29.58 658	3 754	20 54.1
	20	12 32 50.63	9.97	—1 51 37.7	0 57.3	29.62 412	3 923	20 42.2
	23	12 32 40.66	9.06	1 50 40.4	0 51.1	29.66 335	4 083	20 30.2
	26	12 32 31.60	8.13	1 49 49.3	0 44.8	29.70 418	4 228	20 18.3
	29	12 32 23.47	7.17	1 49 4.5	0 38.4	29.74 646	4 363	20 6.3
Juni	1	12 32 16.30	6.20	1 48 26.1	0 31.9	29.79 009	4 485	19 54.4
	4	12 32 10.10	5.21	1 47 54.2	0 25.4	29.83 494	4 596	19 42.5
	7	12 32 4.89	4.19	—1 47 28.8	0 18.6	29.88 090	4 697	19 30.7
	10	12 32 0.70	3.16	1 47 10.2	0 11.8	29.92 787	4 784	19 18.8
	13	12 31 57.54	2.12	1 46 58.4	0 5.0	29.97 571	4 860	19 7.0
	16	12 31 55.42	1.06	1 46 53.4	0 1.8	30.02 431	4 925	18 55.1
	19	12 31 54.36	0.02	1 46 55.2	0 8.8	30.07 356	4 974	18 43.3
	22	12 31 54.38	1.09	1 47 4.0	0 15.9	30.12 330	5 010	18 31.5
	25	12 31 55.47	2.16	—1 47 19.9	0 22.6	30.17 340	5 032	18 19.8
	28	12 31 57.63	3.22	1 47 42.5	0 29.5	30.22 372	5 043	18 8.0
Juli	1	12 32 0.85	4.28	1 48 12.0	0 36.3	30.27 415	5 041	17 56.3
	4	12 32 5.13	5.34	1 48 48.3	0 43.0	30.32 456	5 027	17 44.5
	7	12 32 10.47	6.37	1 49 31.1	0 49.9	30.37 483	5 001	17 32.8
	10	12 32 16.84	7.40	1 50 21.0	0 56.1	30.42 484	4 964	17 21.2
	13	12 32 24.24	8.45	—1 51 17.1	1 2.7	30.47 448	4 915	17 9.5
	16	12 32 32.69	9.45	1 52 19.8	1 9.1	30.52 363	4 853	16 57.8
	19	12 32 42.14	10.45	1 53 28.9	1 15.3	30.57 216	4 777	16 46.2
	22	12 32 52.59	11.42	1 54 44.2	1 21.3	30.61 993	4 690	16 34.6
	25	12 33 4.01	12.37	1 56 5.5	1 27.2	30.66 683	4 590	16 23.0
	28	12 33 16.38	13.29	1 57 32.7	1 32.9	30.71 273	4 481	16 11.4
	31	12 33 29.67	14.20	—1 59 5.6	1 38.3	30.75 754	4 361	15 59.8
Aug.	3	12 33 43.87	15.06	2 0 43.9	1 43.6	30.80 115	4 231	15 48.3
	6	12 33 58.93	15.90	2 2 27.5	1 48.8	30.84 346	4 092	15 36.7
	9	12 34 14.83	16.71	2 4 16.3	1 53.7	30.88 438	3 943	15 25.2
	12	12 34 31.54	17.52	2 6 10.0	1 58.5	30.92 381	3 784	15 13.7
	15	12 34 49.06	18.26	2 8 8.5	2 2.9	30.96 165	3 614	15 2.2
	18	12 35 7.32	18.98	—2 10 11.4	2 7.1	30.99 779	3 434	14 50.7
	21	12 35 26.30	19.66	2 12 18.5	2 11.0	31.03 213	3 247	14 39.2
	24	12 35 45.96	20.29	2 14 29.5	2 14.8	31.06 460	3 051	14 27.7
	27	12 36 6.25	20.89	2 16 44.3	2 18.1	31.09 511	2 849	14 16.3
	30	12 36 27.14	21.45	2 19 2.4	2 21.2	31.12 360	2 641	14 4.8
Sept.	2	12 36 48.59		—2 21 23.6		31.15 001		13 53.4

Tag	0h Weltzeit Scheinbare Rektaszension		Scheinbare Deklination		Δ		Obere Kulmination in Greenwich
1947	h m s	s	° ′ ″	′ ″			h m
Sept. 2	12 36 48.59	21.96	−2 21 23.6	2 24.1	31.15 001	2 426	13 53.4
5	12 37 10.55	22.45	2 23 47.7	2 26.7	31.17 427	2 206	13 42.0
8	12 37 33.00	22.88	2 26 14.4	2 29.0	31.19 633	1 978	13 30.5
11	12 37 55.88	23.29	2 28 43.4	2 31.2	31.21 611	1 745	13 19.1
14	12 38 19.17	23.63	2 31 14.6	2 32.9	31.23 356	1 505	13 7.7
17	12 38 42.80	23.93	2 33 47.5	2 34.3	31.24 861	1 264	12 56.3
20	12 39 6.73	24.18	−2 36 21.8	2 35.3	31.26 125	1 017	12 44.9
23	12 39 30.91	24.39	2 38 57.1	2 36.1	31.27 142	769	12 33.5
26	12 39 55.30	24.54	2 41 33.2	2 36.6	31.27 911	519	12 22.1
29	12 40 19.84	24.64	2 44 9.8	2 36.7	31.28 430	267	12 10.7
Okt. 2	12 40 44.48	24.71	2 46 46.5	2 36.5	31.28 697	15	11 59.4
5	12 41 9.19	24.72	2 49 23.0	2 36.2	31.28 712	240	11 48.0
8	12 41 33.91	24.70	−2 51 59.2	2 35.4	31.28 472	493	11 36.6
11	12 41 58.61	24.61	2 54 34.6	2 34.3	31.27 979	750	11 25.2
14	12 42 23.22	24.48	2 57 8.9	2 33.0	31.27 229	1 003	11 13.8
17	12 42 47.70	24.29	2 59 41.9	2 31.2	31.26 226	1 255	11 2.4
20	12 43 11.99	24.04	3 2 13.1	2 29.2	31.24 971	1 505	10 51.0
23	12 43 36.03	23.74	3 4 42.3	2 26.7	31.23 466	1 751	10 39.6
26	12 43 59.77	23.42	−3 7 9.0	2 24.0	31.21 715	1 990	10 28.2
29	12 44 23.19	23.03	3 9 33.0	2 21.2	31.19 725	2 227	10 16.8
Nov. 1	12 44 46.22	22.60	3 11 54.2	2 17.9	31.17 498	2 460	10 5.4
4	12 45 8.82	22.12	3 14 12.1	2 14.3	31.15 038	2 687	9 54.0
7	12 45 30.94	21.60	3 16 26.4	2 10.4	31.12 351	2 908	9 42.6
10	12 45 52.54	21.02	3 18 36.8	2 6.5	31.09 443	3 125	9 31.1
13	12 46 13.56	20.39	−3 20 43.3	2 2.1	31.06 318	3 334	9 19.7
16	12 46 33.95	19.72	3 22 45.4	1 57.3	31.02 984	3 531	9 8.2
19	12 46 53.67	19.00	3 24 42.7	1 52.3	30.99 453	3 720	8 56.7
22	12 47 12.67	18.24	3 26 35.0	1 47.1	30.95 733	3 902	8 45.3
25	12 47 30.91	17.45	3 28 22.1	1 41.6	30.91 831	4 073	8 33.8
28	12 47 48.36	16.62	3 30 3.7	1 36.1	30.87 758	4 232	8 22.3
Dez. 1	12 48 4.98	15.75	−3 31 39.8	1 30.2	30.83 526	4 382	8 10.7
4	12 48 20.73	14.85	3 33 10.0	1 24.2	30.79 144	4 523	7 59.2
7	12 48 35.58	13.90	3 34 34.2	1 18.0	30.74 621	4 652	7 47.6
10	12 48 49.48	12.93	3 35 52.2	1 11.4	30.69 969	4 767	7 36.1
13	12 49 2.41	11.91	3 37 3.6	1 4.9	30.65 202	4 871	7 24.5
16	12 49 14.32	10.88	3 38 8.5	0 58.0	30.60 331	4 961	7 12.9
19	12 49 25.20	9.82	−3 39 6.5	0 51.1	30.55 370	5 037	7 1.3
22	12 49 35.02	8.74	3 39 57.6	0 44.1	30.50 333	5 098	6 49.7
25	12 49 43.76	7.65	3 40 41.7	0 37.1	30.45 235	5 147	6 38.0
28	12 49 51.41	6.54	3 41 18.8	0 30.1	30.40 088	5 185	6 26.3
31	12 49 57.95		−3 41 48.9		30.34 903		6 14.6

0^h Weltzeit		Mittleres Äquinoktium 1950.0											
		X			ΔX	Y			ΔY	Z			ΔZ
1947													
Jan.	0	+0.149 798	+17 259	− 49	−4	−0.891 584	+ 2 604	+278	+2	−0.386 677	+1 130	+121	−2
	1	0.167 057	17 206	53	0	0.888 980	2 880	276	+2	0.385 547	1 249	119	−4
	2	0.184 263	17 147	59	−1	0.886 100	3 156	276	+4	0.384 298	1 369	120	+3
	3	0.201 410	17 083	64	−1	0.882 944	3 429	273	−3	0.382 929	1 488	119	+3
	4	0.218 493	17 014	69	+1	0.879 515	3 701	272	−4	0.381 441	1 606	118	+1
	5	0.235 507	16 940	74	+2	0.875 814	3 972	271	−2	0.379 835	1 724	118	+1
	6	+0.252 447	+16 862	− 78	+4	−0.871 842	+ 4 242	+270	+1	−0.378 111	+1 840	+116	−3
	7	0.269 309	16 778	84	0	0.867 600	4 510	268	+2	0.376 271	1 957	117	+1
	8	0.286 087	16 690	88	+1	0.863 090	4 778	268	+5	0.374 314	2 072	115	−2
	9	0.302 777	16 597	93	+2	0.858 312	5 044	266	+1	0.372 242	2 188	116	+3
	10	0.319 374	16 499	98	+3	0.853 268	5 308	264	−5	0.370 054	2 302	114	−1
	11	0.335 873	16 397	102	+4	0.847 960	5 571	263	−3	0.367 752	2 417	115	+2
	12	+0.352 270	+16 288	−109	−3	−0.842 389	+ 5 834	+263	+3	−0.365 335	+2 529	+112	−4
	13	0.368 558	16 176	112	0	0.836 555	6 094	260	−1	0.362 806	2 643	114	+4
	14	0.384 734	16 057	119	−5	0.830 461	6 353	259	−1	0.360 163	2 755	112	0
	15	0.400 791	15 934	123	−3	0.824 108	6 610	257	−2	0.357 408	2 866	111	−1
	16	0.416 725	15 805	129	−4	0.817 498	6 865	255	−3	0.354 542	2 977	111	0
	17	0.432 530	15 672	133	−1	0.810 633	7 118	253	−1	0.351 565	3 086	109	−2
	18	+0.448 202	+15 533	−139	−3	−0.803 515	+ 7 369	+251	0	−0.348 479	+3 195	+109	+2
	19	0.463 735	15 389	144	−4	0.796 146	7 618	249	+1	0.345 284	3 304	109	+5
	20	0.479 124	15 240	149	−4	0.788 528	7 864	246	−1	0.341 980	3 410	106	−2
	21	0.494 364	15 086	154	0	0.780 664	8 108	244	0	0.338 570	3 516	106	−2
	22	0.509 450	14 928	158	+3	0.772 556	8 348	240	−4	0.335 054	3 620	104	−5
	23	0.524 378	14 764	164	−2	0.764 208	8 587	239	+3	0.331 434	3 724	104	−1
	24	+0.539 142	+14 595	−169	−3	−0.755 621	+ 8 822	+235	+1	−0.327 710	+3 826	+102	−3
	25	0.553 737	14 422	173	+2	0.746 799	9 054	232	+1	0.323 884	3 927	101	−3
	26	0.568 159	14 245	177	+5	0.737 745	9 283	229	+4	0.319 957	4 026	99	−5
	27	0.582 404	14 063	182	+1	0.728 462	9 509	226	+5	0.315 931	4 124	98	−3
	28	0.596 467	13 876	187	−4	0.718 953	9 732	223	+4	0.311 807	4 221	97	+1
	29	0.610 343	13 685	191	−3	0.709 221	9 950	218	−3	0.307 586	4 316	95	−1
	30	+0.624 028	+13 491	−194	+3	−0.699 271	+10 165	+215	−2	−0.303 270	+4 409	+ 93	−1
	31	0.637 519	13 293	198	+3	0.689 106	10 378	213	+4	0.298 861	4 502	93	+3
Febr.	1	0.650 812	13 091	202	+1	0.678 728	10 586	208	−1	0.294 359	4 591	89	−3
	2	0.663 903	12 885	206	−2	0.668 142	10 791	205	−2	0.289 768	4 681	90	+4
	3	0.676 788	12 676	209	+2	0.657 351	10 992	201	−4	0.285 087	4 768	87	+1
	4	0.689 464	12 464	212	+5	0.646 359	11 191	199	0	0.280 319	4 854	86	−1
	5	+0.701 928	+12 249	−215	+5	−0.635 168	+11 385	+194	−3	−0.275 465	+4 938	+ 84	−2
	6	0.714 177	12 029	220	−2	0.623 783	11 577	192	0	0.270 527	5 021	83	−1
	7	0.726 206	11 807	222	+1	0.612 206	11 765	188	−1	0.265 506	5 102	81	0
	8	0.738 013	11 581	226	+1	0.600 441	11 950	185	0	0.260 404	5 183	81	+4
	9	0.749 594	+11 352	229	+2	0.588 491	+12 132	182	0	0.255 221	+5 261	78	−1
	10	+0.760 946		−233	0	−0.576 359		+177	−5	−0.249 960		+ 77	−1

Δ X, Δ Y, Δ Z sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit	Mittleres Äquinoktium 1950.0											
	X			ΔX	Y			ΔY	Z			ΔZ
1947												
Febr. 10	+0.760 946	+11 119	−233	0	−0.576 359	+12 309	+177	−5	−0.249 960	+5 338	+77	−1
11	0.772 065	10 883	236	0	0.564 050	12 484	175	0	0.244 622	5 414	76	+1
12	0.782 948	10 643	240	−2	0.551 566	12 654	170	−1	0.239 208	5 487	73	−3
13	0.793 591	10 400	243	−1	0.538 912	12 822	168	+3	0.233 721	5 560	73	+3
14	0.803 991	10 153	247	−1	0.526 090	12 984	162	−4	0.228 161	5 631	71	+1
15	0.814 144	9 904	249	+4	0.513 106	13 143	159	−1	0.222 530	5 699	68	−2
16	+0.824 048	+9 651	−253	+2	−0.499 963	+13 298	+155	−1	−0.216 831	+5 767	+68	+3
17	0.833 699	9 395	256	+2	0.486 665	13 448	150	−2	0.211 064	5 832	65	−1
18	0.843 094	9 136	259	+1	0.473 217	13 595	147	+1	0.205 232	5 895	63	−1
19	0.852 230	8 874	262	+2	0.459 622	13 736	141	−3	0.199 337	5 957	62	+4
20	0.861 104	8 610	264	+3	0.445 886	13 874	138	+2	0.193 380	6 018	61	+5
21	0.869 714	8 342	268	−4	0.432 012	14 007	133	+1	0.187 362	6 074	56	−4
22	+0.878 056	+8 072	−270	−4	−0.418 005	+14 135	+128	−1	−0.181 288	+6 131	+57	+2
23	0.886 128	7 799	273	−3	0.403 870	14 258	123	−2	0.175 157	6 184	53	−5
24	0.893 927	7 526	273	+4	0.389 612	14 377	119	0	0.168 973	6 235	51	−4
25	0.901 453	7 248	278	−4	0.375 235	14 491	114	−1	0.162 738	6 285	50	+1
26	0.908 701	6 971	277	+3	0.360 744	14 599	108	−4	0.156 453	6 333	48	+3
27	0.915 672	6 690	281	−4	0.346 145	14 704	105	+4	0.150 120	6 378	45	−1
28	+0.922 362	+6 409	−281	0	−0.331 441	+14 804	+100	+3	−0.143 742	+6 420	+42	−4
März 1	0.928 771	6 125	284	−4	0.316 637	14 898	94	−3	0.137 322	6 462	42	+4
2	0.934 896	5 842	283	+4	0.301 739	14 988	90	−1	0.130 860	6 501	39	+3
3	0.940 738	5 557	285	+1	0.286 751	15 074	86	+1	0.124 359	6 538	37	+2
4	0.946 295	5 270	287	−5	0.271 677	15 155	81	−1	0.117 821	6 573	35	+1
5	0.951 565	4 982	288	−3	0.256 522	15 232	77	−1	0.111 248	6 606	33	+1
6	+0.956 547	+4 695	−287	+3	−0.241 290	+15 304	+72	−4	−0.104 642	+6 637	+31	+1
7	0.961 242	4 405	290	−4	0.225 986	15 372	68	−4	0.098 005	6 667	30	+5
8	0.965 647	4 114	291	−5	0.210 614	15 436	64	−3	0.091 338	6 694	27	+1
9	0.969 761	3 823	291	+1	0.195 178	15 495	59	−5	0.084 644	6 720	26	+2
10	0.973 584	3 530	293	−1	0.179 683	15 550	55	−2	0.077 924	6 744	24	+1
11	0.977 114	3 236	294	−1	0.164 133	15 601	51	−1	0.071 180	6 765	21	−5
12	+0.980 350	+2 942	−294	+4	−0.148 532	+15 646	+45	−5	−0.064 415	+6 785	+20	−2
13	0.983 292	2 646	296	+2	0.132 886	15 688	42	0	0.057 630	6 803	18	−1
14	0.985 938	2 350	296	+1	0.117 198	15 724	36	−2	0.050 827	6 819	16	+1
15	0.988 288	2 052	298	−2	0.101 474	15 757	33	+2	0.044 008	6 833	14	0
16	0.990 340	1 754	298	+1	0.085 717	15 783	26	−5	0.037 175	6 844	11	−2
17	0.992 094	1 456	298	+4	0.069 934	15 805	22	−3	0.030 331	6 855	11	+4
18	+0.993 550	+1 157	−299	+4	−0.054 129	+15 823	+18	+4	−0.023 476	+6 862	+7	−2
19	0.994 707	858	299	+3	0.038 306	15 836	13	+4	0.016 614	6 867	5	−1
20	0.995 565	558	300	0	0.022 470	15 843	7	0	0.009 747	6 871	4	+5
21	0.996 123	+258	300	0	−0.006 627	15 845	+2	−2	−0.002 876	6 873	+2	+5
22	0.996 381	−41	299	+4	+0.009 218	+15 843	−2	+3	+0.003 997	+6 871	−2	+2
23	+0.996 340		−300	+1	+0.025 061		−8	+1	+0.010 868		−3	0

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0^h Weltzeit	X			ΔX	Y			ΔY	Z			ΔZ
	Mittleres Äquinoktium 1950.0											
1947												
März 23	+0.996 340		−300	+1	+0.025 061		− 8	+1	+0.010 868		− 3	0
		− 341				+15 835				+6 868		
24	0.995 999		299	+4	0.040 896		13	+2	0.017 736		5	0
		640				15 822				6 863		
25	0.995 359		298	+5	0.056 718		17	+4	0.024 599		8	−4
		938				15 805				6 855		
26	0.994 421		297	+5	0.072 523		23	+1	0.031 454		11	−5
		1 235				15 782				6 844		
27	0.993 186		298	−3	0.088 305		28	−2	0.038 298		10	−4
		1 533				15 754				6 834		
28	0.991 653		295	+3	0.104 059		33	−3	0.045 132		15	−3
		1 828				15 721				6 819		
29	+0.989 825		−294	+3	+0.119 780		− 36	+3	+0.051 951		−16	−2
		− 2 122				+15 685				+6 803		
30	0.987 703		293	0	0.135 465		43	−3	0.058 754		19	−3
		2 415				15 642				6 784		
31	0.985 288		292	−3	0.151 107		45	+2	0.065 538		19	+2
		2 707				15 597				6 765		
April 1	0.982 581		290	−3	0.166 704		52	−4	0.072 303		23	−3
		2 997				15 545				6 742		
2	0.979 584		290	−5	0.182 249		54	+3	0.079 045		24	−1
		3 287				15 491				6 718		
3	0.976 297		286	+3	0.197 740		59	+2	0.085 763		25	+2
		3 573				15 432				6 693		
4	+0.972 724		−287	−3	+0.213 172		− 63	−1	+0.092 456		−28	−2
		− 3 860				+15 369				+6 665		
5	0.968 864		284	+1	0.228 541		68	−5	0.099 121		30	−3
		4 144				15 301				6 635		
6	0.964 720		284	−3	0.243 842		71	−4	0.105 756		30	+3
		4 428				15 230				6 605		
7	0.960 292		282	0	0.259 072		76	−5	0.112 361		33	−2
		4 710				15 154				6 572		
8	0.955 582		280	+3	0.274 226		80	−3	0.118 933		35	−5
		4 990				15 074				6 537		
9	0.950 592		280	−1	0.289 300		84	+1	0.125 470		37	−5
		5 270				14 990				6 500		
10	+0.945 322		−277	+5	+0.304 290		− 87	+4	+0.131 970		−38	0
		− 5 547				+14 903				+6 462		
11	0.939 775		276	+3	0.319 193		94	−4	0.138 432		40	+3
		5 823				14 809				6 422		
12	0.933 952		275	0	0.334 002		96	+1	0.144 854		41	+5
		6 098				14 713				6 381		
13	0.927 854		273	0	0.348 715		101	−1	0.151 235		45	−2
		6 371				14 612				6 336		
14	0.921 483		270	+5	0.363 327		106	−3	0.157 571		45	+4
		6 641				14 506				6 291		
15	0.914 842		269	+2	0.377 833		109	0	0.163 862		47	+4
		6 910				14 397				6 244		
16	+0.907 932		−268	−4	+0.392 230		−115	−4	+0.170 106		−50	−1
		− 7 178				+14 282				+6 194		
17	0.900 754		264	0	0.406 512		118	+2	0.176 300		51	+2
		7 442				14 164				6 143		
18	0.893 312		264	−4	0.420 676		122	+5	0.182 443		53	+2
		7 706				14 042				6 090		
19	0.885 606		259	+4	0.434 718		127	+3	0.188 533		55	+3
		7 965				13 915				6 035		
20	0.877 641		258	0	0.448 633		132	−1	0.194 568		56	+4
		8 223				13 783				5 979		
21	0.869 418		255	−2	0.462 416		135	+3	0.200 547		60	−2
		8 478				13 648				5 919		
22	+0.860 940		−253	−4	+0.476 064		−140	−1	+0.206 466		−60	+3
		− 8 731				+13 508				+5 859		
23	0.852 209		248	+3	0.489 572		144	−1	0.212 325		62	+3
		8 979				13 364				5 797		
24	0.843 230		246	−1	0.502 936		148	0	0.218 122		65	−1
		9 225				13 216				5 732		
25	0.834 005		243	−3	0.516 152		151	+1	0.223 854		65	+4
		9 468				13 065				5 667		
26	0.824 537		239	−1	0.529 217		156	−4	0.229 521		68	+1
		9 707				12 909				5 599		
27	0.814 830		235	0	0.542 126		158	−1	0.235 120		69	+4
		9 942				12 751				5 530		
28	+0.804 888		−233	−5	+0.554 877		−163	−4	+0.240 650		−70	+5
		−10 175				+12 588				+5 460		
29	0.794 713		229	−4	0.567 465		165	+1	0.246 110		72	+3
		10 404				12 423				5 388		
30	0.784 309		226	−2	0.579 888		168	+3	0.251 498		73	+3
		10 630				12 255				5 315		
Mai 1	0.773 679		221	+4	0.592 143		172	−1	0.256 813		75	0
		10 851				12 083				5 240		
2	0.762 828		219	0	0.604 226		174	+1	0.262 053		76	+1
		−11 070				+11 909				+5 164		
3	+0.751 758		−216	−4	+0.616 135		−178	−4	+0.267 217		−77	+3

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

Sonnenkoordinaten 1947

0h Weltzeit		Mittleres Äquinoktium 1950.0											
		X			ΔX	Y			ΔY	Z			ΔZ
1947 Mai	3	+0.751 758	−11 286	−216	−4	+0.616 135	+11 731	−178	−4	+0.267 217	+5 087	− 77	+3
	4	0.740 472	11 499	213	−5	0.627 866	11 550	181	−3	0.272 304	5 009	78	+4
	5	0.728 973	11 707	208	+3	0.639 416	11 367	183	+2	0.277 313	4 929	80	+2
	6	0.717 266	11 913	206	−2	0.650 783	11 181	186	+4	0.282 242	4 849	80	+3
	7	0.705 353	12 116	203	−4	0.661 964	10 991	190	0	0.287 091	4 766	83	−4
	8	0.693 237	12 315	199	−1	0.672 955	10 799	192	+3	0.291 857	4 682	84	−2
	9	+0.680 922	−12 511	−196	−1	+0.683 754	+10 604	−195	+3	+0.296 539	+4 598	− 84	+5
	10	0.668 411	12 703	192	−1	0.694 358	10 405	199	−2	0.301 137	4 513	85	+4
	11	0.655 708	12 892	189	−3	0.704 763	10 204	201	+1	0.305 650	4 425	88	−3
	12	0.642 816	13 078	186	−5	0.714 967	10 000	204	+2	0.310 075	4 337	88	−3
	13	0.629 738	13 259	181	0	0.724 967	9 793	207	+1	0.314 412	4 247	90	−5
	14	0.616 479	13 438	179	−3	0.734 760	9 583	210	−1	0.318 659	4 156	91	−5
	15	+0.603 041	−13 611	−173	+4	+0.744 343	+ 9 370	−213	−1	+0.322 815	+4 064	− 92	−5
	16	0.589 430	13 782	171	−2	0.753 713	9 154	216	0	0.326 879	3 970	94	−4
	17	0.575 648	13 948	166	−2	0.762 867	8 937	217	+4	0.330 849	3 876	94	+2
	18	0.561 700	14 111	163	−3	0.771 804	8 714	223	+5	0.334 725	3 780	96	+1
	19	0.547 589	14 268	157	+2	0.780 518	8 491	223	+1	0.338 505	3 683	97	+3
	20	0.533 321	14 422	154	−2	0.789 009	8 264	227	−3	0.342 188	3 585	98	+3
	21	+0.518 899	−14 571	−149	+1	+0.797 273	+ 8 035	−229	−1	+0.345 773	+3 486	− 99	+1
	22	0.504 328	14 714	143	+4	0.805 308	7 804	231	0	0.349 259	3 385	101	−4
	23	0.489 614	14 854	140	−4	0.813 112	7 570	234	−4	0.352 644	3 283	102	−3
	24	0.474 760	14 989	135	−5	0.820 682	7 335	235	−1	0.355 927	3 182	101	+3
	25	0.459 771	15 119	130	−2	0.828 017	7 098	237	−2	0.359 109	3 079	103	−1
	26	0.444 652	15 244	125	0	0.835 115	6 859	239	−3	0.362 188	2 974	105	−4
	27	+0.429 408	−15 364	−120	+2	+0.841 974	+ 6 619	−240	−2	+0.365 162	+2 871	−103	+4
	28	0.414 044	15 481	117	−3	0.848 593	6 377	242	−1	0.368 033	2 766	105	0
	29	0.398 563	15 592	111	0	0.854 970	6 135	242	+2	0.370 799	2 660	106	+5
	30	0.382 971	15 700	108	−3	0.861 105	5 890	245	−2	0.373 459	2 554	106	−3
	31	0.367 271	15 802	102	+4	0.866 995	5 645	245	0	0.376 013	2 447	107	−3
Juni	1	0.351 469	15 901	99	0	0.872 640	5 398	247	−2	0.378 460	2 341	106	+2
	2	+0.335 568	−15 995	− 94	+2	+0.878 038	+ 5 150	−248	−2	+0.380 801	+2 232	−109	+5
	3	0.319 573	16 085	90	+3	0.883 188	4 901	249	−1	0.383 033	2 125	107	+3
	4	0.303 488	16 170	85	+5	0.888 089	4 650	251	−3	0.385 158	2 016	109	+1
	5	0.287 318	16 252	82	−1	0.892 739	4 399	251	+3	0.387 174	1 907	109	+3
	6	0.271 066	16 329	77	+1	0.897 138	4 146	253	+1	0.389 081	1 798	109	+4
	7	0.254 737	16 401	72	+3	0.901 284	3 892	254	+3	0.390 879	1 688	110	0
	8	+0.238 336	−16 470	− 69	−1	+0.905 176	+ 3 638	−254	+4	+0.392 567	+1 577	−111	−4
	9	0.221 866	16 533	63	+3	0.908 814	3 381	257	−3	0.394 144	1 466	111	−3
	10	0.205 333	16 593	60	−1	0.912 195	3 124	257	−3	0.395 610	1 355	111	−2
	11	0.188 740	16 647	54	+2	0.915 319	2 865	259	−4	0.396 965	1 243	112	−4
	12	0.172 093	−16 698	51	−3	0.918 184	+ 2 607	258	+3	0.398 208	+1 130	113	−4
	13	+0.155 395		− 45	+1	+0.920 791		−261	−4	+0.399 338		−112	+2

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit	X			ΔX	Y			ΔY	Z			ΔZ
	Mittleres Äquinoktium 1950.0											
1947												
Juni 13	+0.155 395	−16 743	− 45	+1	+0.920 791	+2 346	−261	−4	+0.399 338	+1 018	−112	+2
14	0.138 652	16 784	41	−1	0.923 137	2 085	261	−2	0.400 356	905	113	+2
15	0.121 868	16 820	36	0	0.925 222	1 823	262	−3	0.401 261	791	114	0
16	0.105 048	16 851	31	+1	0.927 045	1 560	263	−2	0.402 052	678	113	+4
17	0.088 197	16 876	25	+4	0.928 605	1 297	263	−4	0.402 730	563	115	−3
18	0.071 321	16 898	22	−3	0.929 902	1 033	264	−4	0.403 293	448	115	−2
19	+0.054 423	−16 912	− 14	+4	+0.930 935	+ 768	−265	−5	+0.403 741	+ 334	−114	+4
20	0.037 511	16 923	11	−2	0.931 703	505	263	+2	0.404 075	220	114	+4
21	0.020 588	16 928	− 5	+1	0.932 208	+ 240	265	−5	0.404 295	+ 104	116	−4
22	+0.003 660	16 927	+ 1	+5	0.932 448	− 24	264	−5	0.404 399	− 10	114	−1
23	−0.013 267	16 922	5	+1	0.932 424	288	264	−3	0.404 389	125	115	−3
24	0.030 189	16 912	10	−1	0.932 136	550	262	+3	0.404 264	239	114	0
25	−0.047 101	−16 897	+ 15	0	+0.931 586	− 813	−263	−2	+0.404 025	− 353	−114	+2
26	0.063 998	16 877	20	−1	0.930 773	1 075	262	−2	0.403 672	467	114	+2
27	0.080 875	16 853	24	−4	0.929 698	1 336	261	−1	0.403 205	580	113	+5
28	0.097 728	16 825	28	−5	0.928 362	1 597	261	−1	0.402 625	693	113	+5
29	0.114 553	16 791	34	+3	0.926 765	1 856	259	+1	0.401 932	806	113	+3
30	0.131 344	16 753	38	+3	0.924 909	2 116	260	−5	0.401 126	918	112	+4
Juli 1	−0.148 097	−16 711	+ 42	+2	+0.922 793	−2 375	−259	−4	+0.400 208	−1 030	−112	0
2	0.164 808	16 664	47	+1	0.920 418	2 632	257	+3	0.399 178	1 143	113	−4
3	0.181 472	16 614	50	−3	0.917 786	2 889	257	0	0.398 035	1 253	110	+4
4	0.198 086	16 558	56	+1	0.914 897	3 146	257	−3	0.396 782	1 365	112	−3
5	0.214 644	16 499	59	−1	0.911 751	3 401	255	+1	0.395 417	1 475	110	0
6	0.231 143	16 434	65	+4	0.908 350	3 656	255	−3	0.393 942	1 586	111	−5
7	−0.247 577	−16 366	+ 68	0	+0.904 694	−3 910	−254	−3	+0.392 356	−1 696	−110	−3
8	0.263 943	16 293	73	+2	0.900 784	4 163	253	−3	0.390 660	1 805	109	−1
9	0.280 236	16 215	78	+3	0.896 621	4 415	252	−3	0.388 855	1 915	110	−4
10	0.296 451	16 134	81	0	0.892 206	4 667	252	−5	0.386 940	2 023	108	0
11	0.312 585	16 047	87	+4	0.887 539	4 917	250	−1	0.384 917	2 132	109	−4
12	0.328 632	15 956	91	+2	0.882 622	5 166	249	+2	0.382 785	2 240	108	−3
13	−0.344 588	−15 860	+ 96	+2	+0.877 456	−5 414	−248	+1	+0.380 545	−2 348	−108	−2
14	0.360 448	15 760	100	−1	0.872 042	5 661	247	−1	0.378 197	2 454	106	+4
15	0.376 208	15 655	105	−1	0.866 381	5 907	246	−3	0.375 743	2 561	107	−1
16	0.391 863	15 544	111	+4	0.860 474	6 151	244	0	0.373 182	2 667	106	0
17	0.407 407	15 429	115	−1	0.854 323	6 393	242	+1	0.370 515	2 772	105	−1
18	0.422 836	15 310	119	−5	0.847 930	6 634	241	+1	0.367 743	2 877	105	−3
19	−0.438 146	−15 185	+125	−1	+0.841 296	−6 872	−238	+3	+0.364 866	−2 980	−103	0
20	0.453 331	15 056	129	+1	0.834 424	7 108	236	−1	0.361 886	3 083	103	−1
21	0.468 387	14 922	134	+3	0.827 316	7 343	235	−4	0.358 803	3 185	102	0
22	0.483 309	14 783	139	+5	0.819 973	7 574	231	+3	0.355 618	3 285	100	+5
23	0.498 092	−14 642	141	−2	0.812 399	−7 803	229	+2	0.352 333	−3 384	99	+4
24	−0.512 734		+147	+4	+0.804 596		−226	+4	+0.348 949		− 99	−1

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit	Mittleres Äquinoktium 1950.0											
	X			ΔX	Y			ΔY	Z			ΔZ
1947												
Juli 24	−0.512 734	−14 495	+147	+4	+0.804 596	− 8 029	−226	+4	+0.348 949	−3 483	−99	−1
25	0.527 229	14 345	150	+1	0.796 567	8 254	225	0	0.345 466	3 580	97	+1
26	0.541 574	14 191	154	+1	0.788 313	8 475	221	+4	0.341 886	3 677	97	−1
27	0.555 765	14 033	158	+3	0.779 838	8 694	219	+3	0.338 209	3 771	94	+5
28	0.569 798	13 871	162	+3	0.771 144	8 911	217	+1	0.334 438	3 865	94	+3
29	0.583 669	13 707	164	−4	0.762 233	9 125	214	+3	0.330 573	3 958	93	0
30	−0.597 376	−13 537	+170	+3	+0.753 108	− 9 336	−211	+4	+0.326 615	−4 050	−92	0
31	0.610 913	13 365	172	−2	0.743 772	9 546	210	−4	0.322 565	4 140	90	+1
Aug. 1	0.624 278	13 189	176	−2	0.734 226	9 752	206	−1	0.318 425	4 230	90	−2
2	0.637 467	13 010	179	−2	0.724 474	9 957	205	−4	0.314 195	4 318	88	−2
3	0.650 477	12 826	184	+4	0.714 517	10 158	201	0	0.309 877	4 406	88	−5
4	0.663 303	12 640	186	0	0.704 359	10 357	199	−1	0.305 471	4 492	86	0
5	−0.675 943	−12 449	+191	+3	+0.694 002	−10 553	−196	0	+0.300 979	−4 576	−84	+4
6	0.688 392	12 256	193	−4	0.683 449	10 747	194	−4	0.296 403	4 661	85	−3
7	0.700 648	12 059	197	−5	0.672 702	10 939	192	−4	0.291 742	4 743	82	+1
8	0.712 707	11 858	201	−2	0.661 763	11 126	187	+4	0.286 999	4 825	82	−2
9	0.724 565	11 654	204	−2	0.650 637	11 313	187	−4	0.282 174	4 906	81	−1
10	0.736 219	11 446	208	+1	0.639 324	11 495	182	+4	0.277 268	4 984	78	+4
11	−0.747 665	−11 234	+212	+3	+0.627 829	−11 674	−179	+4	+0.272 284	−5 063	−79	−2
12	0.758 899	11 018	216	+4	0.616 155	11 852	178	−4	0.267 221	5 139	76	+2
13	0.769 917	10 800	218	−2	0.604 303	12 025	173	0	0.262 082	5 215	76	−2
14	0.780 717	10 577	223	+3	0.592 278	12 196	171	−3	0.256 867	5 289	74	+1
15	0.791 294	10 350	227	+3	0.580 082	12 361	165	+4	0.251 578	5 361	72	+5
16	0.801 644	10 121	229	−3	0.567 721	12 525	164	−3	0.246 217	5 431	70	+4
17	−0.811 765	− 9 888	+233	−2	+0.555 196	−12 684	−159	−1	+0.240 786	−5 501	−70	−4
18	0.821 653	9 652	236	0	0.542 512	12 839	155	−1	0.235 285	5 569	68	−4
19	0.831 305	9 413	239	+3	0.529 673	12 990	151	0	0.229 716	5 634	65	+1
20	0.840 718	9 171	242	+5	0.516 683	13 137	147	−2	0.224 082	5 698	64	0
21	0.849 889	8 926	245	+5	0.503 546	13 281	144	−3	0.218 384	5 760	62	−2
22	0.858 815	8 680	246	0	0.490 265	13 419	138	+2	0.212 624	5 821	61	−3
23	−0.867 495	− 8 431	+249	+2	+0.476 846	−13 555	−136	−4	+0.206 803	−5 879	−58	0
24	0.875 926	8 179	252	+5	0.463 291	13 686	131	−1	0.200 924	5 936	57	−3
25	0.884 105	7 925	254	+2	0.449 605	13 814	128	−3	0.194 988	5 992	56	−5
26	0.892 030	7 670	255	−4	0.435 791	13 937	123	0	0.188 996	6 045	53	−2
27	0.899 700	7 412	258	−4	0.421 854	14 057	120	−2	0.182 951	6 097	52	−2
28	0.907 112	7 153	259	−5	0.407 797	14 173	116	−2	0.176 854	6 147	50	0
29	−0.914 265	− 6 890	+263	+1	+0.393 624	−14 285	−112	0	+0.170 707	−6 196	−49	−1
30	0.921 155	6 627	263	−3	0.379 339	14 393	108	+1	0.164 511	6 242	46	+5
31	0.927 782	6 361	266	−1	0.364 946	14 497	104	+1	0.158 269	6 287	45	+3
Sept. 1	0.934 143	6 094	267	−4	0.350 449	14 598	101	−3	0.151 982	6 331	44	0
2	0.940 237	− 5 825	269	−1	0.335 851	−14 695	97	−1	0.145 651	−6 372	41	+3
3	−0.946 062		+272	+4	+0.321 156		− 92	+4	+0.139 279		−41	−3

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0^h Weltzeit	Mittleres Äquinoktium 1950.0 X			ΔX	Y			ΔY	Z			ΔZ
1947												
Sept. 3	−0.946 062	−5 553	+272	+4	+0.321 156	−14 787	−92	+4	+0.139 279	−6 413	−41	−3
4	0.951 615	5 280	273	+2	0.306 369	14 876	89	+2	0.132 866	6 451	38	+1
5	0.956 895	5 005	275	0	0.291 493	14 961	85	0	0.126 415	6 488	37	−1
6	0.961 900	4 729	276	−4	0.276 532	15 042	81	−2	0.119 927	6 523	35	0
7	0.966 629	4 450	279	−2	0.261 490	15 119	77	−4	0.113 404	6 556	33	+1
8	0.971 079	4 170	280	−3	0.246 371	15 192	73	−5	0.106 848	6 588	32	−3
9	−0.975 249	−3 888	+282	0	+0.231 179	−15 261	−69	−2	+0.100 260	−6 618	−30	−1
10	0.979 137	3 603	285	+5	0.215 918	15 324	63	+4	0.093 642	6 646	28	+1
11	0.982 740	3 317	286	+3	0.200 594	15 384	60	0	0.086 996	6 671	25	+3
12	0.986 057	3 031	286	−3	0.185 210	15 439	55	−2	0.080 325	6 696	25	−3
13	0.989 088	2 741	290	+3	0.169 771	15 489	50	−2	0.073 629	6 718	22	0
14	0.991 829	2 452	289	−3	0.154 282	15 535	46	−5	0.066 911	6 737	19	+3
15	−0.994 281	−2 160	+292	+1	+0.138 747	−15 575	−40	−2	+0.060 174	−6 755	−18	−3
16	0.996 441	1 869	291	−5	0.123 172	15 611	36	−4	0.053 419	6 771	16	−5
17	0.998 310	1 577	292	−2	0.107 561	15 642	31	−1	0.046 648	6 784	13	−3
18	0.999 887	1 283	294	+5	0.091 919	15 667	25	+3	0.039 864	6 796	12	−5
19	1.001 170	990	293	+2	0.076 252	15 689	22	−1	0.033 068	6 805	9	0
20	1.002 160	697	293	+1	0.060 563	15 705	16	+4	0.026 263	6 812	7	+2
21	−1.002 857	−403	+294	+5	+0.044 858	−15 716	−11	+4	+0.019 451	−6 816	−4	+4
22	1.003 260	−109	294	+5	0.029 142	15 724	8	−3	0.012 635	6 820	4	−4
23	1.003 369	+184	293	+1	+0.013 418	15 727	−3	−3	+0.005 815	6 821	−1	−3
24	1.003 185	478	294	+3	−0.002 309	15 724	+3	+2	−0.001 006	6 820	+1	−3
25	1.002 707	771	293	+2	0.018 033	15 719	5	−4	0.007 826	6 817	3	−2
26	1.001 936	1 065	294	+3	0.033 752	15 707	12	+4	0.014 643	6 812	5	−2
27	−1.000 871	+1 357	+292	−5	−0.049 459	−15 692	+15	+1	−0.021 455	−6 806	+6	−5
28	0.999 514	1 650	293	−3	0.065 151	15 673	19	−2	0.028 261	6 797	9	−1
29	0.997 864	1 942	292	−4	0.080 824	15 648	25	+4	0.035 058	6 786	11	+2
30	0.995 922	2 233	291	−5	0.096 472	15 620	28	0	0.041 844	6 774	12	0
Okt. 1	0.993 689	2 525	292	+1	0.112 092	15 588	32	−1	0.048 618	6 759	15	+2
2	0.991 164	2 817	292	+3	0.127 680	15 550	38	+4	0.055 377	6 744	15	−4
3	−0.988 347	+3 107	+290	−4	−0.143 230	−15 510	+40	−1	−0.062 121	−6 725	+19	+1
4	0.985 240	3 397	290	−5	0.158 740	15 463	47	+4	0.068 846	6 706	19	−4
5	0.981 843	3 687	290	−2	0.174 203	15 414	49	−3	0.075 552	6 684	22	−2
6	0.978 156	3 977	290	0	0.189 617	15 359	55	+1	0.082 236	6 661	23	−3
7	0.974 179	4 265	288	−4	0.204 976	15 300	59	−1	0.088 897	6 635	26	+2
8	0.969 914	4 554	289	+2	0.220 276	15 236	64	+1	0.095 532	6 607	28	+2
9	−0.965 360	+4 842	+288	0	−0.235 512	−15 167	+69	+2	−0.102 139	−6 578	+29	−2
10	0.960 518	5 128	286	−4	0.250 679	15 094	73	−1	0.108 717	6 546	32	+1
11	0.955 390	5 414	286	−2	0.265 773	15 015	79	+1	0.115 263	6 512	34	−1
12	0.949 976	5 698	284	−2	0.280 788	14 932	83	−3	0.121 775	6 477	35	−4
13	0.944 278	+5 982	284	+1	0.295 720	−14 844	88	−4	0.128 252	−6 438	39	+3
14	−0.938 296		+280	−4	−0.310 564		+93	−5	−0.134 690		+40	+1

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0^h Weltzeit	Mittleres Äquinoktium 1950,0											
	X			*ΔX*	*Y*			*ΔY*	*Z*			*ΔZ*
1947												
Okt. 14	−0.938 296	+ 6 262	+280	−4	−0.310 564	−14 751	+ 93	−5	−0.134 690	−6 398	+ 40	+1
15	0.932 034	6 543	281	+4	0.325 315	14 653	98	−4	0.141 088	6 355	43	+2
16	0.925 491	6 820	277	−1	0.339 968	14 551	102	−4	0.147 443	6 311	44	−3
17	0.918 671	7 096	276	−1	0.354 519	14 443	108	+3	0.153 754	6 265	46	−5
18	0.911 575	7 368	272	−4	0.368 962	14 332	111	+1	0.160 019	6 216	49	−1
19	0.904 207	7 640	272	+4	0.383 294	14 215	117	+5	0.166 235	6 166	50	−3
20	−0.896 567	+ 7 908	+268	+1	−0.397 509	−14 095	+120	+2	−0.172 401	−6 113	+ 53	+1
21	0.888 659	8 175	267	+4	0.411 604	13 970	125	+2	0.178 514	6 059	54	−2
22	0.880 484	8 438	263	−1	0.425 574	13 841	129	+1	0.184 573	6 003	56	−3
23	0.872 046	8 699	261	−1	0.439 415	13 708	133	−3	0.190 576	5 946	57	−4
24	0.863 347	8 958	259	+2	0.453 123	13 572	136	+5	0.196 522	5 885	61	+3
25	0.854 389	9 213	255	0	0.466 695	13 430	142	+3	0.202 407	5 825	60	−4
26	−0.845 176	+ 9 467	+254	+4	−0.480 125	−13 285	+145	+1	−0.208 232	−5 761	+ 64	+3
27	0.835 709	9 717	250	−2	0.493 410	13 137	148	−1	0.213 993	5 697	64	0
28	0.825 992	9 964	247	−3	0.506 547	12 984	153	+3	0.219 690	5 630	67	+3
29	0.816 028	10 210	246	+3	0.519 531	12 827	157	+4	0.225 320	5 563	67	−1
30	0.805 818	10 451	241	−3	0.532 358	12 668	159	−3	0.230 883	5 493	70	+2
31	0.795 367	10 691	240	+2	0.545 026	12 504	164	−2	0.236 376	5 422	71	+1
Nov. 1	−0.784 676	+10 928	+237	+3	−0.557 530	−12 337	+167	−4	−0.241 798	−5 350	+ 72	−2
2	0.773 748	11 162	234	+1	0.569 867	12 166	171	−5	0.247 148	5 275	75	0
3	0.762 586	11 393	231	+1	0.582 033	11 991	175	−4	0.252 423	5 200	75	−5
4	0.751 193	11 622	229	+3	0.594 024	11 813	178	−4	0.257 623	5 123	77	−5
5	0.739 571	11 847	225	−1	0.605 837	11 630	183	+1	0.262 746	5 044	79	0
6	0.727 724	12 069	222	+1	0.617 467	11 443	187	+4	0.267 790	4 962	82	+4
7	−0.715 655	+12 289	+220	+5	−0.628 910	−11 252	+191	+2	−0.272 752	−4 881	+ 81	−4
8	0.703 366	12 505	216	+1	0.640 162	11 059	193	−3	0.277 633	4 796	85	+4
9	0.690 861	12 716	211	−5	0.651 221	10 860	199	+4	0.282 429	4 710	86	+1
10	0.678 145	12 924	208	−3	0.662 081	10 658	202	+3	0.287 139	4 623	87	−3
11	0.665 221	13 129	205	+3	0.672 739	10 452	206	+5	0.291 762	4 534	89	0
12	0.652 092	13 329	200	+3	0.683 191	10 242	210	+2	0.296 296	4 443	91	+3
13	−0.638 763	+13 526	+197	+4	−0.693 433	−10 030	+212	−5	−0.300 739	−4 350	+ 93	+4
14	0.625 237	13 717	191	−3	0.703 463	9 814	216	−3	0.305 089	4 257	93	−1
15	0.611 520	13 904	187	−4	0.713 277	9 594	220	0	0.309 346	4 161	96	+2
16	0.597 616	14 087	183	−1	0.722 871	9 372	222	−2	0.313 507	4 065	96	−4
17	0.583 529	14 265	178	+1	0.732 243	9 146	226	+2	0.317 572	3 967	98	−2
18	0.569 264	14 440	175	+4	0.741 389	8 918	228	+2	0.321 539	3 868	99	−1
19	−0.554 824	+14 608	+168	−3	−0.750 307	− 8 687	+231	+2	−0.325 407	−3 768	+100	−1
20	0.540 216	14 773	165	+2	0.758 994	8 453	234	+4	0.329 175	3 666	102	+5
21	0.525 443	14 933	160	+3	0.767 447	8 216	237	+3	0.332 841	3 563	103	+5
22	0.510 510	15 089	156	+4	0.775 663	7 979	237	−4	0.336 404	3 460	103	+2
23	0.495 421	+15 239	150	−1	0.783 642	− 7 737	242	+4	0.339 864	−3 355	105	+4
24	−0.480 182		+146	+2	−0.791 379		+243	+1	−0.343 219		+106	+3

ΔX, *ΔY*, *ΔZ* sind in Einheiten der 7. Dezimale gegeben.

0h Weltzeit	Mittleres Äquinoktium 1950.0											
	X			ΔX	Y			ΔY	Z			ΔZ
1947												
Nov. 24	−0.480 182	+15 385	+146	+2	−0.791 379	−7 494	+243	+1	−0.343 219	−3 249	+106	+3
25	0.464 797	15 527	142	+5	0.798 873	7 249	245	0	0.346 468	3 143	106	−3
26	0.449 270	15 664	137	+2	0.806 122	7 001	248	+3	0.349 611	3 036	107	−3
27	0.433 606	15 796	132	−1	0.813 123	6 752	249	−1	0.352 647	2 928	108	0
28	0.417 810	15 924	128	−1	0.819 875	6 501	251	−2	0.355 575	2 818	110	+4
29	0.401 886	16 047	123	−2	0.826 376	6 248	253	0	0.358 393	2 709	109	−2
30	−0.385 839	+16 167	+120	+2	−0.832 624	−5 992	+256	+4	−0.361 102	−2 598	+111	−1
Dez. 1	0.369 672	16 280	113	−4	0.838 616	5 735	257	+1	0.363 700	2 487	111	−3
2	0.353 392	16 391	111	+5	0.844 351	5 476	259	+1	0.366 187	2 375	112	−2
3	0.337 001	16 497	106	+5	0.849 827	5 214	262	+4	0.368 562	2 261	114	+4
4	0.320 504	16 597	100	−2	0.855 041	4 951	263	+2	0.370 823	2 147	114	+1
5	0.303 907	16 692	95	−4	0.859 992	4 685	266	+5	0.372 970	2 032	115	+1
6	−0.287 215	+16 783	+ 91	−1	−0.864 677	−4 418	+267	+2	−0.375 002	−1 917	+115	−2
7	0.270 432	16 868	85	−1	0.869 095	4 148	270	+3	0.376 919	1 799	118	+4
8	0.253 564	16 949	81	+3	0.873 243	3 878	270	−3	0.378 718	1 683	116	−2
9	0.236 615	17 023	74	−3	0.877 121	3 605	273	−1	0.380 401	1 564	119	+4
10	0.219 592	17 092	69	−3	0.880 726	3 331	274	−2	0.381 965	1 445	119	+2
11	0.202 500	17 155	63	−2	0.884 057	3 056	275	−5	0.383 410	1 326	119	−1
12	−0.185 345	+17 214	+ 59	+4	−0.887 113	−2 780	+276	−4	−0.384 736	−1 206	+120	−2
13	0.168 131	17 266	52	0	0.889 893	2 502	278	+1	0.385 942	1 086	120	−2
14	0.150 865	17 312	46	−2	0.892 395	2 224	278	−1	0.387 028	965	121	+3
15	0.133 553	17 354	42	+2	0.894 619	1 945	279	0	0.387 993	844	121	+3
16	0.116 199	17 388	34	−4	0.896 564	1 666	279	−1	0.388 837	722	122	+5
17	0.098 811	17 418	30	+3	0.898 230	1 386	280	+2	0.389 559	601	121	−1
18	−0.081 393	+17 443	+ 25	+5	−0.899 616	−1 105	+281	+4	−0.390 160	− 479	+122	−1
19	0.063 950	17 461	18	0	0.900 721	826	279	−2	0.390 639	358	121	−5
20	0.046 489	17 474	13	0	0.901 547	545	281	+5	0.390 997	236	122	−1
21	0.029 015	17 481	7	−1	0.902 092	− 264	281	+4	0.391 233	− 114	122	−1
22	−0.011 534	17 484	+ 3	+2	0.902 356	+ 16	280	−1	0.391 347	+ 7	121	−2
23	+0.005 950	17 480	− 4	−3	0.902 340	295	279	−4	0.391 340	129	122	+2
24	+0.023 430	+17 471	− 9	−3	−0.902 045	+ 575	+280	+1	−0.391 211	+ 250	+121	+1
25	0.040 901	17 458	13	+1	0.901 470	854	279	+3	0.390 961	371	121	+3
26	0.058 359	17 439	19	−1	0.900 616	1 133	279	+4	0.390 590	492	121	+5
27	0.075 798	17 415	24	−3	0.899 483	1 411	278	+3	0.390 098	613	121	+5
28	0.093 213	17 386	29	−2	0.898 072	1 689	278	+4	0.389 485	733	120	+1
29	0.110 599	17 353	33	+1	0.896 383	1 967	278	+5	0.388 752	853	120	+1
30	+0.127 952	+17 314	− 39	−2	−0.894 416	+2 244	+277	−1	−0.387 899	+ 974	+121	+3
31	0.145 266	+17 270	44	−2	0.892 172	+2 520	276	−3	0.386 925	+1 093	119	−5
32	+0.162 536		− 49	−1	−0.889 652		+275	+1	−0.385 832		+118	−4

ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

Mittleres Äquinoktium 1950.0

MERKUR 1947

0h Weltzeit		log r	Helioz. Länge	Red. auf d. Bahn	Helioz. Breite	0h Weltzeit		log r	Helioz. Länge	Red. auf d. Bahn	Helioz. Breite
1947			°	°	°	1947			°	°	°
Jan.	0	9.6617	235.67	+0.06	−0.97	Juli	4	9.6688	260.75	+0.20	−3.83
	5	9.6682	249.58	+0.15	−2.62		9	9.6634	274.66	+0.21	−5.13
	10	9.6682	263.32	+0.20	−4.09		14	9.6516	289.17	+0.18	−6.16
	15	9.6617	277.32	+0.21	−5.34		19	9.6331	304.81	+0.09	−6.83
	20	9.6487	292.01	+0.17	−6.32		24	9.6079	322.13	−0.03	−6.98
	25	9.6288	307.91	+0.07	−6.90		29	9.5769	341.84	−0.16	−6.40
	30	9.6025	325.63	−0.06	−6.94	Aug.	3	9.5426	4.70	−0.21	−4.79
Febr.	4	9.5705	345.88	−0.18	−6.18		8	9.5107	31.24	−0.12	−2.00
	9	9.5362	9.40	−0.21	−4.36		13	9.4905	61.16	+0.10	+1.63
	14	9.5056	36.64	−0.08	−1.36		18	9.4908	92.64	+0.21	+4.96
	19	9.4888	67.04	+0.13	+2.32		23	9.5114	122.82	+0.11	+6.77
	24	9.4933	98.50	+0.21	+5.43		28	9.5435	149.55	−0.09	+6.86
März	1	9.5168	128.14	+0.07	+6.91	Sept.	2	9.5777	172.38	−0.20	+5.77
	6	9.5499	154.13	−0.12	+6.72		7	9.6086	191.90	−0.20	+4.11
	11	9.5839	176.28	−0.21	+5.49		12	9.6336	208.98	−0.13	+2.26
	16	9.6137	195.27	−0.19	+3.77		17	9.6520	224.38	−0.03	+0.41
	21	9.6376	211.98	−0.11	+1.91		22	9.6637	238.75	+0.08	−1.34
	26	9.6547	227.14	0.00	+0.07		27	9.6688	252.59	+0.16	−2.95
	31	9.6651	241.38	+0.10	−1.66	Okt.	2	9.6674	266.34	+0.21	−4.38
April	5	9.6690	255.17	+0.18	−3.24		7	9.6594	280.45	+0.21	−5.58
	10	9.6664	268.96	+0.21	−4.63		12	9.6448	295.36	+0.15	−6.48
	15	9.6573	283.18	+0.20	−5.78		17	9.6236	311.60	+0.05	−6.96
	20	9.6414	298.30	+0.13	−6.61		22	9.5959	329.81	−0.09	−6.85
	25	9.6189	314.85	+0.02	−6.99		27	9.5631	350.71	−0.20	−5.88
	30	9.5901	333.51	−0.11	−6.74	Nov.	1	9.5288	15.03	−0.20	−3.80
Mai	5	9.5567	355.00	−0.21	−5.58		6	9.5004	43.06	−0.03	−0.57
	10	9.5227	20.02	−0.18	−3.27		11	9.4880	73.92	+0.17	+3.10
	15	9.4967	48.69	+0.01	+0.12		16	9.4971	105.22	+0.19	+5.91
	20	9.4880	79.86	+0.19	+3.74		21	9.5236	134.15	+0.03	+6.99
	25	9.5011	110.90	+0.17	+6.26		26	9.5575	159.28	−0.15	+6.52
	30	9.5297	139.18	−0.01	+7.00	Dez.	1	9.5908	180.66	−0.21	+5.14
Juni	4	9.5640	163.56	−0.17	+6.31		6	9.6195	199.09	−0.18	+3.37
	9	9.5967	184.32	−0.21	+4.83		11	9.6419	215.40	−0.09	+1.50
	14	9.6242	202.29	−0.17	+3.02		16	9.6575	230.31	+0.02	−0.32
	19	9.6453	218.29	−0.07	+1.16		21	9.6665	244.41	+0.12	−2.02
	24	9.6597	233.01	+0.04	−0.65		26	9.6689	258.16	+0.19	−3.56
	29	9.6675	247.01	+0.13	−2.32		31	9.6649	272.01	+0.21	−4.90
Juli	4	9.6688	260.75	+0.20	−3.83						

☊ = 47°739 i = 7°004 $m = \frac{1}{6\,000\,000}$

Mittleres Äquinoktium 1950.0

0^h Weltzeit	Julian. Zeit	log r	Heliozentr. Länge	Red. auf d. Bahn	Heliozentr. Breite	log R	Länge
		VENUS 1947				ERDE 1947	
1947	d		°	in 0°001	°		°
Jan. —5	2432 180.5	9.85648	116.584	+50	+2.199	9.99275	93.665
+5	190.5	9.85638	132.826	+46	+2.834	9.99268	103.857
15	200.5	9.85654	149.079	+28	+3.244	9.99283	114.047
25	210.5	9.85690	165.323	+ 2	+3.394	9.99320	124.225
Febr. 4	220.5	9.85746	181.532	—26	+3.274	9.99378	134.380
14	2432 230.5	9.85816	197.686	—45	+2.897	9.99455	144.504
24	240.5	9.85896	213.770	—50	+2.293	9.99548	154.588
März 6	250.5	9.85977	229.779	—40	+1.514	9.99654	164.626
16	260.5	9.86056	245.716	—18	+0.620	9.99771	174.612
26	270.5	9.86124	261.594	+ 9	—0.317	9.99893	184.544
April 5	2432 280.5	9.86178	277.429	+34	—1.228	0.00018	194.419
15	290.5	9.86213	293.243	+48	—2.045	0.00141	204.238
25	300.5	9.86226	309.052	+48	—2.705	0.00260	214.002
Mai 5	310.5	9.86217	324.875	+34	—3.162	0.00371	223.714
15	320.5	9.86187	340.722	+10	—3.379	0.00470	233.379
25	330.5	9.86137	356.602	—18	—3.339	0.00556	243.003
Juni 4	340.5	9.86071	12.519	—40	—3.044	0.00625	252.593
14	350.5	9.85994	28.477	—50	—2.514	0.00677	262.156
24	360.5	9.85912	44.479	—45	—1.788	0.00709	271.700
Juli 4	370.5	9.85832	60.527	—26	—0.920	0.00721	281.235
14	2432 380.5	9.85759	76.624	+ 1	+0.023	0.00713	290.769
24	390.5	9.85600	92.770	+27	+0.967	0.00685	300.311
Aug. 3	400.5	9.85660	108.962	+46	+1.837	0.00636	309.869
13	410.5	9.85640	125.192	+50	+2.561	0.00570	319.453
23	420.5	9.85644	141.442	+38	+3.082	0.00487	329.070
Sept. 2	2432 430.5	9.85671	157.693	+15	+3.357	0.00390	338.727
12	440.5	9.85718	173.921	—13	+3.364	0.00281	348.431
22	450.5	9.85782	190.103	—37	+3.105	0.00163	358.185
Okt. 2	460.5	9.85858	206.220	—50	+2.602	0.00040	7.993
12	470.5	9.85940	222.264	—47	+1.898	9.99915	17.858
22	2432 480.5	9.86021	238.234	—30	+1.050	9.99791	27.780
Nov. 1	490.5	9.86094	254.137	— 4	+0.124	9.99673	37.757
11	500.5	9.86155	269.990	+23	—0.808	9.99565	47.787
21	510.5	9.86199	285.811	+43	—1.677	9.99469	57.864
Dez. 1	520.5	9.86223	301.620	+50	—2.418	9.99389	67.982
11	2432 530.5	9.86224	317.435	+42	—2.975	9.99328	78.133
21	540.5	9.86204	333.269	+22	—3.308	9.99287	88.308
31	2432 550.5	9.86162	349.133	— 5	—3.390	9.99267	98.497

Venus: ☊ = 76°230 $\quad i = 3°394$ $\quad m = \frac{1}{408\,000}$

Erde: $m = \frac{1}{329\,390}$

Mittleres Äquinoktium 1950.0

0h Weltzeit	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite
	MARS 1947				JUPITER 1947			
1947		°	in 0°001	°		°	in 0°0001	°
Jan. —5	0.15737	278.504	+15	—1.403	0.734284	222.0427	—67	+1.1074
+5	0.15418	284.417	14	1.520	0.734141	222.8067	68	1.0980
15	0.15123	290.415	13	1.622	0.733997	223.5712	69	1.0885
25	0.14856	296.491	11	1.707	0.733848	224.3362	69	1.0787
Febr. 4	0.14621	302.639	8	1.774	0.733696	225.1017	70	1.0688
14	0.14421	308.849	+ 5	—1.820	0.733540	225.8678	—71	+1.0586
24	0.14261	315.111	+ 2	1.846	0.733381	226.6345	71	1.0483
März 6	0.14142	321.413	— 1	1.849	0.733218	227.4017	72	1.0377
16	0.14067	327.744	4	1.830	0.733053	228.1695	72	1.0270
26	0.14036	334.090	7	1.788	0.732883	228.9378	73	1.0161
April 5	0.14020	340.438	—10	—1.724	0.732711	229.7068	—73	+1.0049
15	0.14011	346.774	12	1.640	0.732535	230.4764	74	0.9936
25	0.14215	353.086	14	1.536	0.732356	231.2466	74	0.9821
Mai 5	0.14362	359.361	15	1.414	0.732173	232.0175	74	0.9704
15	0.14548	5.587	15	1.276	0.731987	232.7890	74	0.9586
25	0.14771	11.755	—14	—1.125	0.731798	233.5611	—74	+0.9465
Juni 4	0.15027	17.853	13	0.962	0.731607	234.3340	74	0.9343
14	0.15313	23.876	12	0.791	0.731412	235.1075	74	0.9219
24	0.15625	29.815	9	0.614	0.731213	235.8817	74	0.9093
Juli 4	0.15958	35.667	7	0.432	0.731011	236.6566	74	0.8965
14	0.16307	41.427	— 4	—0.250	0.730807	237.4322	—74	+0.8835
24	0.16669	47.093	— 1	—0.067	0.730600	238.2086	74	0.8704
Aug. 3	0.17041	52.664	+ 2	+0.112	0.730389	238.9857	74	0.8571
13	0.17416	58.140	5	0.288	0.730176	239.7635	73	0.8436
23	0.17793	63.523	7	0.458	0.729959	240.5421	73	0.8300
Sept. 2	0.18168	68.813	+ 9	+0.622	0.729740	241.3215	—73	+0.8162
12	0.18537	74.013	11	0.777	0.729518	242.1017	72	0.8022
22	0.18899	79.127	13	0.924	0.729293	242.8827	72	0.7880
Okt. 2	0.19249	84.158	14	1.061	0.729065	243.6645	71	0.7737
12	0.19587	89.110	15	1.188	0.728835	244.4471	70	0.7593
22	0.19909	93.988	+15	+1.304	0.728601	245.2306	—70	+0.7447
Nov. 1	0.20215	98.797	15	1.410	0.728366	246.0149	69	0.7299
11	0.20502	103.541	14	1.504	0.728127	246.8000	68	0.7150
21	0.20769	108.224	13	1.587	0.727886	247.5860	67	0.6999
Dez. 1	0.21016	112.853	12	1.658	0.727642	248.3729	66	0.6847
11	0.21240	117.433	+10	+1.719	0.727396	249.1607	—66	+0.6693
21	0.21441	121.968	8	1.767	0.727147	249.9493	65	0.6538
31	0.21619	126.464	+ 6	+1.805	0.726896	250.7389	—63	+0.6381

Mars: ☊ = 49°172 i = 1°850 $m = \frac{1}{3\,093\,500}$

Jupiter: ☊ = 99°9528 i = 1°3059 $m = \frac{1}{1\,047.35}$

Mittleres Äquinoktium 1950.0

SATURN 1947

0h Weltzeit			Julian. Zeit	log r	Heliozentrische Länge	Red. auf die Bahn	Heliozentr. Breite
			d		°	in 0°.0001	°
1946	Dez.	6	2432 160.5	0.958760	123.5999	+ 96	+0.4480
1947	Jan.	15	200.5	0.959062	125.0690	109	0.5107
	Febr.	24	240.5	0.959377	126.5359	121	0.5729
	April	5	280.5	0.959703	128.0005	+133	+0.6346
	Mai	15	320.5	0.960042	129.4629	145	0.6959
	Juni	24	360.5	0.960392	130.9229	157	0.7565
	Aug.	3	400.5	0.960754	132.3804	+168	+0.8166
	Sept.	12	440.5	0.961127	133.8355	178	0.8761
	Okt.	22	480.5	0.961510	135.2880	189	0.9349
1947	Dez.	1	520.5	0.961904	136.7378	198	0.9930
1948	Jan.	10	2432 560.5	0.962308	138.1849	+207	+1.0503

☊ = 113°.2251 $\qquad i = 2°.4903 \qquad m = \frac{1}{3\,501.6}$

URANUS 1947

0h Weltzeit			Julian. Zeit	log r	Heliozentrische Länge	Red. auf die Bahn	Heliozentr. Breite
			d		°	in 0°.001	°
1946	Dez.	6	2432 160.5	1.28224	79.734	+ 1	+0.080
1947	Jan.	15	200.5	1.28207	80.204	1	0.086
	Febr.	24	240.5	1.28190	80.675	1	0.093
	April	5	280.5	1.28172	81.145	+ 1	+0.099
	Mai	15	320.5	1.28155	81.617	1	0.105
	Juni	24	360.5	1.28138	82.088	1	0.112
	Aug.	3	400.5	1.28121	82.560	+ 1	+0.118
	Sept.	12	440.5	1.28104	83.032	1	0.124
	Okt.	22	480.5	1.28087	83.505	1	0.130
1947	Dez.	1	520.5	1.28069	83.978	1	0.137
1948	Jan.	10	2432 560.5	1.28052	84.451	+ 1	+0.143

☊ = 73°.745 $\qquad i = 0°.773 \qquad m = \frac{1}{22\,869}$

NEPTUN 1947

0h Weltzeit			Julian. Zeit	log r	Heliozentrische Länge	Red. auf die Bahn	Heliozentr. Breite
			d		°	in 0°.001	°
1946	Dez.	6	2432 160.5	1.48121	188.803	+ 12	+1.498
1947	Jan.	15	200.5	1.48122	189.040	12	1.502
	Febr.	24	240.5	1.48123	189.276	12	1.506
	April	5	280.5	1.48123	189.512	+ 12	+1.510
	Mai	15	320.5	1.48124	189.749	12	1.513
	Juni	24	360.5	1.48125	189.985	12	1.517
	Aug.	3	400.5	1.48125	190.221	+ 12	+1.521
	Sept.	12	440.5	1.48126	190.458	12	1.525
	Okt.	22	480.5	1.48127	190.694	12	1.529
1947	Dez.	1	520.5	1.48127	190.930	12	1.532
1948	Jan.	10	2432 560.5	1.48128	191.167	+ 12	+1.536

☊ = 131°.230 $\qquad i = 1°.775 \qquad m = \frac{1}{19\,314}$

Mittlere und Scheinbare Sternörter 1947

Reduktionsgrößen

Mittlere Sternörter 1947.0

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
905	[2 Ceti]	4.62	A 0	0 1 1.533	+3.0729	+ 16	−17 37 51.42	+20.041	− 2
1001	[45 G. Tucanae]	5.64	B 9	0 2 1.227	+3.0463	+ 92	−71 43 54.91	+20.026	− 16
1002	[33 Piscium]	4.68	K 0	0 2 37.313	+3.0708	− 8	− 6 0 14.14	+20.139	+ 97
1003	[9 G. Ceti]	6.06	F 0	0 4 7.456	+3.0700	+ 73	−23 24 7.03	+20.000	− 40
1	α Andromedae	2.15	A 0 p	0 5 38.539	+3.1017	+ 103	+28 47 52.48	+19.878	− 159
2	β Cassiopeiae	2.42	F 5	0 6 20.115	+3.2022	+ 675	+58 51 27.16	+19.857	− 178
3	ε Phoenicis	3.94	K 0	0 6 43.648	+3.0451	+ 126	−46 2 22.89	+19.864	− 170
4	[22 Andromedae]	5.08	F 0	0 7 33.378	+3.1190	+ 3	+45 46 38.74	+20.035	+ 3
5	[ϰ² Sculptoris]	5.56	K 0	0 8 53.089	+3.0463	+ 8	−28 5 41.29	+20.053	+ 25
6	[ϑ Sculptoris]	5.19	F 5	0 9 2.501	+3.0485	+ 129	−35 25 46.37	+20.163	+ 136
7	γ Pegasi	2.87	B 2	0 10 30.178	+3.0896	+ 1	+14 53 20.52	+20.015	− 6
1004	[χ Pegasi]	4.94	M 0	0 11 51.346	+3.1048	+ 65	+19 54 43.49	+20.021	+ 5
1005	[σ Andromedae]	4.51	A 2	0 15 33.063	+3.1347	− 56	+36 29 29.87	+19.961	− 35
1006	[Pi 0ʰ 38 Andr]	5.80	A 0	0 15 51.810	+3.1340	+ 47	+31 13 23.36	+19.999	+ 4
9	ι Ceti	3.75	K 0	0 16 43.614	+3.0563	− 12	− 9 7 3.10	+19.962	− 27
10	ζ Tucanae	4.34	F 8	0 17 19.384	+3.1259	+2711	−65 11 9.86	+21.158	+1173
1007	[−18° 41 Cetus]	6.88	K 0	0 17 21.764	+3.0453	+ 50	−17 59 39.76	+19.994	+ 9
1008	[41 Piscium]	5.58	K 0	0 17 52.052	+3.0873	− 4	+ 7 53 45.86	+19.997	+ 15
1009	[ρ Andromedae]	5.20	F 5	0 18 19.306	+3.1607	+ 49	+37 40 30.87	+19.945	− 34
1010	[44 Piscium]	5.99	G 5	0 22 41.050	+3.0761	− 9	+ 1 38 47.00	+19.935	− 10
11	β Hydri	2.90	G 0	0 22 59.968	+3.1560	+6900	−77 33 9.25	+20.270	+ 329
12	α Phoenicis	2.44	K 0	0 23 40.141	+2.9654	+ 190	−42 35 36.78	+19.552	− 384
1011	[Pi 0ʰ 78 Cetus]	7.54	M 3	0 25 19.158	+3.0450	+ 30	−11 57 6.53	+19.905	− 15
1012	[48 Piscium]	6.46	K 2	0 25 27.236	+3.1173	+ 11	+16 9 7.81	+19.908	− 11
13	12 Ceti	6.05	K 5	0 27 19.979	+3.0620	+ 6	− 4 14 59.57	+19.897	− 3
14	[49 G. Ceti]	5.23	A 3	0 27 43.744	+2.9992	− 19	−24 4 50.20	+19.918	+ 22
15	[λ¹ Phoenicis]	4.88	A 2	0 28 51.901	+2.8939	+ 145	−49 5 46.80	+19.914	+ 30
16	[ϰ Cassiopeiae]	4.24	B 0	0 29 58.080	+3.4099	− 5	+62 38 22.61	+19.875	+ 3
1013	[77 G. Sculptoris]	5.62	K 0	0 31 3.862	+2.9674	− 21	−29 51 0.65	+19.826	− 32
1014	[58 G. Phoenicis]	5.55	F 5	0 31 56.803	+2.8538	+ 241	−52 39 56.53	+19.888	+ 39
17	ζ Cassiopeiae	3.72	B 3	0 34 0.284	+3.3432	+ 17	+53 36 19.96	+19.816	− 6
18	π Andromedae	4.47	B 3	0 34 2.573	+3.2050	+ 12	+33 25 40.32	+19.822	0
19	[ε Andromedae]	4.52	G 5	0 35 44.901	+3.1709	− 176	+29 1 27.61	+19.552	− 247
20	δ Andromedae	3.49	K 2	0 36 29.225	+3.2089	+ 104	+30 34 16.44	+19.701	− 88
21	α Cassiopeiae	2.1–2.6	K 0	0 37 29.079	+3.4051	+ 60	+56 14 49.40	+19.747	− 28
1015	[μ Phoenicis]	4.65	K 0	0 38 49.469	+2.8341	− 26	−46 22 32.03	+19.767	+ 11
1016	[Lac 181 Scul]	7.21	M 0	0 40 3.700	+2.9006	− 18	−36 18 45.98	+19.747	+ 10
22	β Ceti	2.24	K 0	0 40 55.784	+3.0113	+ 165	−18 16 37.89	+19.763	+ 40
23	[η Phoenicis]	4.53	A 0	0 40 58.755	+2.6968	+ 4	−57 45 12.15	+19.744	+ 21
26	[λ² Sculptoris]	5.97	K 0	0 41 38.499	+2.8997	+ 201	−38 42 47.89	+19.839	+ 127

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″001
		m		h m s	s		° ′ ″	″	
25	ο Cassiopeiae	4.70	B 2	0 41 45.617	+3.3440	+ 17	+47 59 40.88	+19.707	− 3
24	21 Cassiopeiae	*5.7-6.1*	A 2	0 42 6.506	+3.9612	− 53	+74 41 55.65	+19.685	− 20
1017	[70 G. Phoenicis]	6.00	A 5	0 42 26.929	+2.8360	− 79	−42 57 54.01	+19.600	− 100
27	ζ Andromedae	4.30	K 0	0 44 31.421	+3.1806	− 75	+23 58 45.24	+19.589	− 76
1018	[79 G. Ceti]	5.45	B 9	0 45 23.736	+2.9686	+ 17	−22 0 41.12	+19.642	− 9
1019	[96 G. Piscium]	5.82	G 5	0 45 36.006	+3.1469	+ 505	+ 5 0 30.31	+18.506	−1141
28	[δ Piscium]	4.55	K 5	0 45 55.771	+3.1129	+ 55	+ 7 17 49.16	+19.596	− 45
1020	[64 Piscium]	5.23	F 5	0 46 11.331	+3.1531	− 2	+16 39 17.50	+19.439	− 197
31	[λ Hydri]	4.96	K 5	0 46 45.508	+2.0831	+ 354	−75 12 42.13	+19.603	− 24
1021	[ν Andromedae]	4.42	B 3	0 46 52.894	+3.3091	+ 15	+40 47 26.37	+19.607	− 17
30	[φ² Ceti]	5.24	F 5	0 47 28.268	+3.0045	− 157	−10 55 45.65	+19.394	− 220
29	[Br 82 Cass]	5.45	F 2 + A 2	0 47 29.344	+3.6403	+ 39	+63 57 34.07	+19.607	− 6
1022	[20 Ceti]	4.92	K 0	0 50 17.843	+3.0663	+ 3	− 1 25 54.14	+19.549	− 13
34	[λ² Tucanae]	5.34	K 0	0 53 1.924	+2.2417	+ 20	−69 48 48.20	+19.472	− 36
32	γ Cassiopeiae	1.6–2.3	B 0 p	0 53 29.433	+3.6212	+ 28	+60 25 48.87	+19.496	− 2
33	μ Andromedae	3.94	A 2	0 53 48.164	+3.3308	+ 127	+38 12 44.42	+19.529	+ 37
1023	[68 Piscium]	5.64	K 0	0 54 57.630	+3.2473	+ 2	+28 42 21.97	+19.462	− 7
35	α Sculptoris	4.39	B 5	0 56 3.198	+2.8902	+ 12	−29 38 36.60	+19.453	+ 7
1024	[98 G. Ceti]	6.70	K 0	0 56 4.603	+3.0386	+ 3	− 6 10 2.96	+19.372	− 73
1025	[101 G. Ceti]	6.58	G 5	0 59 0.836	+2.9775	+ 55	−16 32 56.86	+19.310	− 71
1027	[80 G. Phoenicis]	6.00	K 0	0 59 47.563	+2.5363	− 2	−57 17 14.41	+19.393	+ 29
1026	[σ Sculptoris]	5.52	A 2	0 59 54.626	+2.8644	+ 57	−31 50 12.95	+19.378	+ 17
36	ε Piscium	4.45	K 0	1 0 11.356	+3.1141	− 54	+ 7 36 18.93	+19.384	+ 30
37	[26 Ceti]	6.18	F 0	1 1 5.199	+3.0877	+ 78	+ 1 4 59.53	+19.298	− 36
1028	[72 Piscium]	5.65	F 2	1 2 17.226	+3.1675	+ 4	+14 39 41.50	+19.365	+ 59
1029	[106 G. Ceti]	6.29	G 5	1 3 33.748	+2.9063	− 19	−24 16 31.40	+19.234	− 42
1030	[μ Cassiopeiae]	5.26	G 5	1 4 43.668	+3.9927	+3940	+54 39 40.04	+17.674	−1574
39	[ι Tucanae]	5.32	K 0	1 5 12.991	+2.3767	+ 108	−62 3 28.54	+19.238	+ 2
1031	υ Phoenicis	5.15	A 3	1 5 22.744	+2.7408	+ 35	−41 46 12.14	+19.237	+ 4
40	[η Ceti]	3.60	K 0	1 5 55.371	+3.0179	+ 147	−10 27 45.60	+19.090	− 128
42	β Andromedae	2.37	M 0	1 6 45.384	+3.3601	+ 146	+35 20 24.36	+19.086	− 112
41	[44 H. Cephei]	5.68	A 0	1 7 36.727	+5.1821	+ 326	+79 23 33.64	+19.177	+ 2
1032	[χ Piscium]	4.89	K 0	1 8 35.958	+3.2252	+ 26	+20 45 12.27	+19.146	− 5
43	[τ Piscium]	4.70	K 0	1 8 44.049	+3.3048	+ 53	+29 48 31.73	+19.115	− 32
44	[102 G. Sculpt.]	5.91	A 5	1 10 19.012	+2.7632	+ 68	−38 8 12.73	+19.082	− 24
1033	[ζ Piscium *pr*]	5.57	A 5	1 10 57.528	+3.1349	+ 95	+ 7 17 44.19	+19.039	− 50
1034	[89 Piscium]	5.28	A 2	1 15 3.725	+3.0948	− 35	+ 3 20 9.34	+18.958	− 19
45	υ Piscium	4.67	A 2	1 16 32.799	+3.2980	+ 16	+26 59 9.86	+18.925	− 9
1035	[ξ Andromedae]	4.99	K 0	1 19 12.511	+3.5332	+ 31	+45 15 6.19	+18.867	+ 11
1036	[109 G. Sculpt.]	5.82	K 5	1 21 3.062	+2.7921	− 5	−31 13 16.47	+18.765	− 37

Mittlere Sternörter 1947.0

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ′ ″	″	
47	ϑ Ceti	3.83	K o	1 21 22.371	+2.9988	− 54	− 8 27 22.78	+18.576	−216
1037	[138 G. Ceti]	6.38	G 5	1 22 6.994	+3.0487	+ 11	− 3 7 26.18	+18.743	− 26
46	[ψ Cassiopeiae]	4.97	K o	1 22 9.484	+4.2383	+ 126	+67 51 15.19	+18.797	+ 30
48	δ Cassiopeiae	2.80	A 5	1 22 19.706	+3.9256	+ 396	+59 57 38.17	+18.716	− 46
1038	[9 G. Hydri]	5.82	K 5	1 23 15.439	+2.0739	+ 27	−64 38 40.78	+18.724	− 10
1039	[94 Piscium]	5.63	K o	1 23 49.577	+3.2407	+ 31	+18 57 58.95	+18.660	− 57
1041	[47 Ceti]	5.68	F o	1 24 14.605	+2.9606	+ 12	−13 19 53.32	+18.715	+ 12
1040	[ω Andromedae]	4.96	F 5	1 24 28.351	+3.5892	+ 321	+45 8 1.76	+18.595	−100
49	[γ Phoenicis]	3.40	K 5	1 26 3.941	+2.6050	− 16	−43 35 20.93	+18.447	−198
1043	[48 Ceti]	5.13	A o	1 27 3.578	+2.8780	+ 40	−21 54 10.55	+18.622	+ 9
1042	[38 Cassiopeiae]	5.95	F 5	1 27 14.948	+4.4638	+ 263	+69 59 34.15	+18.537	− 70
50	η Piscium	3.72	G 5	1 28 38.560	+3.2108	+ 18	+15 4 23.58	+18.558	− 3
1044	[δ Phoenicis]	3.96	K o	1 29 2.807	+2.4973	+ 137	−49 20 51.14	+18.710	+162
53	[14 G. Hydri]	6.06	G 5	1 33 16.742	+0.4014	− 74	−78 46 24.85	+18.288	−118
1045	[υ Andromedae]	4.18	G o	1 33 40.573	+3.5220	− 153	+41 8 28.17	+18.012	−378
51	40 Cassiopeiae	5.50	K o	1 34 14.029	+4.7926	− 36	+72 46 15.36	+18.360	− 10
1046	[π Piscium]	5.63	F o	1 34 17.084	+3.1810	− 46	+11 52 16.30	+18.418	+ 48
52	51 Andromedae	3.77	K o	1 34 43.581	+3.6837	+ 66	+48 21 37.94	+18.245	−109
54	α Eridani	0.60	B 5	1 35 44.585	+2.2347	+ 127	−57 30 19.52	+18.295	− 23
55	43 Cassiopeiae	5.54	A o p	1 38 23.028	+4.4439	+ 86	+67 46 33.65	+18.219	− 3
56	[ν Piscium]	4.68	K o	1 38 40.186	+3.1226	− 17	+ 5 13 12.45	+18.219	+ 7
1047	[+34° 297 Tria]	5.45	B 8	1 38 59.147	+3.4685	+ 38	+34 58 43.93	+18.171	− 30
58	[129 G. Sculpt.]	5.64	A o	1 39 42.794	+2.6434	− 39	−37 5 56.81	+18.156	− 19
1048	[π Sculptoris]	5.28	K o	1 39 45.068	+2.7068	− 62	−32 35 36.53	+18.159	− 15
1049	[175 G. Ceti]	5.27	G 5	1 40 2.610	+3.0340	− 1	− 3 57 23.25	+18.130	− 32
57	φ Persei	4.19	B o p	1 40 19.461	+3.7613	+ 26	+50 25 21.49	+18.140	− 11
59	τ Ceti	3.65	K o	1 41 36.301	+2.7873	−1192	−16 12 57.36	+18.963	+859
60	o Piscium	4.50	K o	1 42 35.465	+3.1686	+ 48	+ 8 53 30.37	+18.121	+ 54
61	ε Sculptoris	5.42	F o	1 43 9.821	+2.8099	+ 117	−25 19 0.40	+17.993	− 52
1050	[4 Arietis]	5.73	A o	1 45 18.124	+3.2543	+ 34	+16 41 32.71	+17.934	− 30
1051	[χ Ceti]	4.77	F o	1 46 58.808	+2.9466	− 103	−10 56 52.23	+17.808	− 90
1052	[2 Persei]	5.64	B 9	1 48 46.208	+3.8163	+ 12	+50 31 54.48	+17.804	− 23
62	ζ Ceti	3.92	K o	1 48 50.561	+2.9614	+ 25	−10 35 46.08	+17.791	− 33
64	α Trianguli	3.58	F 5	1 50 3.176	+3.4208	+ 8	+29 19 17.45	+17.544	−231
63	ε Cassiopeiae	3.44	B 3	1 50 33.384	+4.3162	+ 40	+63 24 36.64	+17.737	− 17
65	ξ Piscium	4.84	K o	1 50 48.518	+3.1064	+ 14	+ 2 55 36.13	+17.772	+ 28
67	ψ Phoenicis	4.41	M 3	1 51 31.361	+2.4051	− 82	−46 33 41.69	+17.636	− 79
66	β Arietis	2.72	A 5	1 51 42.394	+3.3147	+ 68	+20 32 59.23	+17.600	−108
1053	[φ Phoenicis]	5.00	B 9	1 52 10.086	+2.4885	− 38	−42 45 22.63	+17.671	− 18
69	[η^2 Hydri]	4.72	K o	1 53 35.351	+1.5205	+ 128	−67 54 27.04	+17.718	+ 87

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
68	χ Eridani	3.73	G 5	1 53 53.817	+2.3349	+734	−51 52 19.39	+17.918	+301
72	α Hydri	3.02	F 0	1 57 6.012	+1.8907	+375	−61 49 37.63	+17.522	+ 40
71	υ Ceti	4.18	M 0	1 57 30.422	+2.8265	+ 93	−21 20 1.85	+17.449	− 16
1054	[4 Persei]	4.99	B 8	1 58 45.329	+3.9959	+ 37	+54 13 56.80	+17.413	+ 3
70	50 Cassiopeiae	4.06	A 2	1 58 51.719	+5.1226	−104	+72 9 58.53	+17.432	+ 28
73	γ Andromedae *pr*	2.28	K 0	2 0 38.136	+3.6839	+ 44	+42 4 35.22	+17.281	− 47
1055	[ν Fornacis]	4.74	A 0 p	2 2 6.878	+2.6888	+ 4	−29 33 1.60	+17.273	+ 9
74	α Arietis	2.23	K 2	2 4 10.769	+3.3826	+138	+23 12 45.96	+17.027	−144
75	β Trianguli	3.08	A 5	2 6 22.864	+3.5707	+119	+34 44 15.40	+17.032	− 38
1056	[15 Arietis]	5.92	M 0	2 7 40.983	+3.3262	+ 62	+19 15 4.65	+16.987	− 23
77	[Br 299 Andr]	5.40	K 0	2 10 3.942	+3.9914	+366	+50 49 14.91	+16.733	−166
1057	[19 Arietis]	5.99	K 5	2 10 9.550	+3.2729	+ 66	+15 1 56.68	+16.878	− 17
1058	[ξ¹ Ceti]	4.54	G 5	2 10 11.205	+3.1804	− 16	+ 8 35 56.72	+16.892	− 2
76	55 Cassiopeiae	6.15	F 5 + A 2	2 10 17.563	+4.7087	− 23	+66 16 38.67	+16.888	0
78	μ Fornacis	5.24	A 0	2 10 34.441	+2.6420	+ 14	−30 58 17.89	+16.888	+ 12
1060	[135 G. Phoenicis]	5.86	K 0	2 12 23.210	+2.4269	− 27	−41 24 46.55	+16.764	− 25
1059	[21 Arietis]	5.64	F 5	2 12 41.957	+3.4045	− 66	+24 47 54.63	+16.697	− 78
79	[γ Trianguli]	4.07	A 0	2 14 9.298	+3.5674	+ 35	+33 36 11.58	+16.660	− 44
80	67 Ceti	5.70	G 5	2 14 20.272	+2.9929	+ 60	− 6 39 55.80	+16.590	−105
82	[φ Eridani]	3.78	B 8	2 14 36.960	+2.1434	+ 98	−51 45 24.50	+16.667	− 16
1062	[21 G. Fornacis]	6.74	G 5	2 15 5.105	+2.5429	+139	−36 13 40.96	+16.720	+ 60
81	[ϑ Arietis]	5.69	A 0	2 15 10.311	+3.3379	− 9	+19 39 25.19	+16.658	+ 3
1061	[232 G. Ceti]	5.82	F 8	2 15 16.029	+3.1171	+243	+ 1 30 29.62	+17.032	+381
1063	[62 Andromedae]	5.12	A 0	2 15 50.844	+3.8720	− 57	+47 8 11.98	+16.620	− 2
1064	[239 G. Ceti]	5.99	K 0	2 19 35.089	+2.8275	+ 12	−17 54 8.81	+16.386	− 51
83	[κ Fornacis]	5.37	F 5	2 20 7.014	+2.7455	+147	−24 3 22.75	+16.356	− 55
1065	[δ Hydri]	4.26	A 2	2 20 47.999	+1.0693	− 80	−68 54 0.75	+16.391	+ 13
1067	[κ Hydri]	6.00	K 0	2 22 32.287	+0.3603	−187	−73 53 8.79	+16.301	+ 11
1066	[ρ Ceti]	4.90	A 0	2 23 23.258	+2.8982	− 12	−12 31 42.86	+16.242	− 3
84	[λ Horologii]	5.47	F 2	2 23 24.889	+1.6777	− 95	−60 32 55.09	+16.119	−125
86	[κ Eridani]	4.44	B 5	2 25 2.553	+2.1994	+ 21	−47 56 27.56	+16.159	− 1
1068	[12 Trianguli]	5.38	F 0	2 25 3.084	+3.5178	− 15	+29 26 2.00	+16.076	− 83
85	ξ² Ceti	4.34	A 0	2 25 20.218	+3.1902	+ 25	+ 8 13 24.78	+16.142	− 2
1069	[27 Arietis]	6.41	G 5	2 27 57.683	+3.3285	+ 22	+17 28 13.85	+15.927	− 81
1070	[14 Trianguli]	5.35	K 0	2 28 51.546	+3.6624	+ 37	+35 54 48.36	+15.979	+ 19
1071	[σ Ceti]	4.82	F 5	2 29 34.416	+2.8433	− 52	−15 28 34.90	+15.805	−117
88	[λ¹ Fornacis]	5.88	K 0	2 30 54.380	+2.5013	− 19	−34 52 56.24	+15.835	− 17
90	μ Hydri	5.29	K 0	2 32 44.699	−1.2687	+459	−79 20 27.06	+15.718	− 36
87	36 H. Cassiop.	5.34	K 0	2 32 56.592	+5.7032	− 80	+72 35 18.27	+15.762	+ 23
1072	[ν Ceti]	5.04	G 5	2 33 5.342	+3.1488	− 21	+ 5 21 46.80	+15.713	− 21

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Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0s.0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0".001
		m		h m s	s		° ' "	"	
1073	[268 G. Ceti]	5.92	K 0	2 33 10.233	+3.2906	+1210	+ 6 38 6.30	+17.192	+1463
1074	[80 Ceti]	5.71	K 5	2 33 23.370	+2.9533	− 25	− 8 3 40.09	+15.662	− 55
89	ν Arietis	5.36	A 2	2 35 48.037	+3.4073	− 9	+21 44 0.22	+15.572	− 13
91	δ Ceti	4.04	B 2	2 36 45.759	+3.0754	+ 7	+ 0 6 3.52	+15.536	+ 3
1075	[ι Eridani]	4.06	K 0	2 38 34.508	+2.3673	+ 115	−40 4 52.96	+15.407	− 25
95	[ε Hydri]	4.26	B 9	2 38 46.032	+0.9247	+ 170	−68 29 36.88	+15.438	+ 16
1076	[ζ Horologii]	5.26	F 2	2 39 0.644	+1.8679	+ 48	−54 46 34.16	+15.418	+ 10
92	[Br 366 Cass]	5.84	A 2	2 40 14.012	+5.1628	+ 23	+67 36 4.43	+15.308	− 29
94	[35 Arietis]	4.58	B 3	2 40 20.085	+3.5214	+ 5	+27 28 58.42	+15.328	− 5
93	ϑ Persei	4.22	F 8	2 40 33.984	+4.0990	+ 344	+49 0 20.72	+15.236	− 84
1077	[14 Persei]	5.58	G 5	2 40 37.384	+3.9079	+ 3	+44 4 23.03	+15.311	− 6
97	π Ceti	4.39	B 5	2 41 35.906	+2.8554	− 6	−14 4 55.82	+15.251	− 11
1078	[43 G. Fornacis]	6.87	G 0	2 41 53.206	+2.6678	+ 123	−25 43 10.27	+15.307	+ 61
98	μ Ceti	4.36	F 0	2 42 4.368	+3.2436	+ 190	+ 9 53 29.37	+15.205	− 30
99	[η Persei]	3.95	K 0	2 46 48.791	+4.3778	+ 22	+55 40 37.67	+14.951	− 10
100	41 Arietis	3.68	B 8	2 46 51.437	+3.5321	+ 49	+27 2 35.94	+14.846	− 113
101	β Fornacis	4.50	K 0	2 46 52.311	+2.5112	+ 72	−32 37 39.17	+15.123	+ 163
1079	[σ Arietis]	5.46	B 5	2 48 33.713	+3.3134	+ 22	+14 51 53.49	+14.837	− 23
102	τ² Eridani	4.81	K 0	2 48 37.989	+2.7214	− 36	−21 13 17.52	+14.838	− 18
103	τ Persei	4.06	G 0 + A 5	2 50 29.098	+4.2550	+ 3	+52 32 49.63	+14.744	− 2
104	η Eridani	4.05	K 0	2 53 50.166	+2.9312	+ 53	− 9 6 28.73	+14.333	− 214
1080	[40 G. Eridani]	5.27	A 2	2 53 57.858	+3.0079	− 23	− 3 55 28.59	+14.498	− 41
1081	[47 Arietis]	5.85	F 0	2 55 2.861	+3.4346	+ 165	+20 27 26.65	+14.445	− 28
1082	[24 Persei]	4.97	K 0	2 55 46.123	+3.7177	− 42	+34 58 19.52	+14.440	+ 10
106	ϑ Eridani *pr*	3.42	A 2	2 56 15.046	+2.2745	− 46	−40 30 58.16	+14.427	+ 26
1083	[λ Ceti]	4.69	B 5	2 56 52.214	+3.2159	+ 1	+ 8 41 50.41	+14.353	− 10
105	47 H. Cephei	5.72	M 0	2 58 57.167	+7.9977	− 138	+79 12 43.64	+14.244	+ 11
107	α Ceti	2.82	M 0	2 59 30.341	+3.1366	− 6	+ 3 52 58.81	+14.128	− 73
1084	[−18° 516 Erid.]	7.40	F 0	2 59 36.354	+2.7575	− 17	−18 24 54.26	+14.174	− 22
1085	[τ³ Eridani]	4.16	A 3	3 0 3.243	+2.6453	− 105	−23 49 52.30	+14.121	− 47
108	γ Persei	3.08	F 5 + A 3	3 0 56.552	+4.3465	+ 1	+53 18 1.95	+14.109	− 2
1086	[58 G. Eridani]	5.66	K 0	3 1 7.070	+2.0504	+ 18	−47 10 54.74	+14.116	+ 14
109	ρ Persei	3.2–4.1	M 3	3 1 46.259	+3.8455	+ 111	+38 38 10.91	+13.956	− 104
113	[ϑ Hydri]	5.52	B 8	3 2 7.921	+0.1259	+ 65	−72 6 33.67	+14.063	+ 23
110	μ Horologii	5.16	F 0	3 2 21.670	+1.4137	− 101	−59 56 33.55	+13.973	− 52
111	β Persei	2.2–3.5	B 8	3 4 42.653	+3.9048	+ 6	+40 45 10.86	+13.878	+ 3
1087	[63 G. Eridani]	7.16	G 0	3 4 48.354	+2.8340	+ 6	−13 57 39.58	+13.618	− 253
112	[ι Persei]	4.17	G 0	3 5 13.717	+4.3309	+1297	+49 24 45.44	+13.766	− 76
1088	[55 Arietis]	5.60	B 9	3 6 25.006	+3.6102	+ 15	+28 52 33.84	+13.759	− 10
114	δ Arietis	4.53	K 0	3 8 35.589	+3.4314	+ 107	+19 31 39.45	+13.625	− 5

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ' "	"	
116	[94 Ceti]	5.14	F 8	3 10 3.972	+3.0624	+ 131	− 1 23 35.08	+13.476	− 59
118	[38 G. Horologii]	5.72	N 0	3 11 12.371	+1.5194	+ 11	−57 31 9.63	+13.479	+ 17
1089	[ζ Arietis]	4.95	A 0	3 11 50.974	+3.4493	− 19	+20 50 57.81	+13.347	− 72
1090	79 G. Fornacis	6.85	G 0	3 12 34.958	+2.3591	+ 24	−35 45 14.08	+13.384	+ 12
1091	[ζ Eridani]	4.90	A 3	3 13 15.401	+2.9146	− 4	− 9 0 55.52	+13.379	+ 51
115	48 H. Cephei	5.50	F 0	3 13 31.072	+7.6164	+ 196	+77 32 34.94	+13.251	− 55
1092	[Lac 1044 Forn]	6.89	A 0	3 14 44.713	+2.4585	+ 14	−31 32 43.60	+13.211	− 19
1093	[ϰ Ceti]	4.96	G 5	3 16 34.684	+3.1472	+ 178	+ 3 10 37.66	+13.208	+ 98
1095	[ι Hydri]	5.53	F 2	3 17 14.284	−1.4936	+ 337	−77 34 56.85	+13.135	+ 67
119	[82 G. Eridani]	4.30	G 5	3 17 48.655	+2.3959	+2785	−43 16 16.82	+13.781	+753
1094	[τ Arietis]	5.17	B 3	3 18 9.708	+3.4646	+ 19	+20 57 26.50	+12.979	− 25
1096	[Pi 3h27 Caml]	5.55	K 2	3 20 2.910	+5.2090	− 13	+64 23 55.40	+12.881	+ 4
120	α Persei	1.90	F 5	3 20 31.598	+4.2846	+ 30	+49 40 27.56	+12.823	− 22
121	ο Tauri	3.80	G 5	3 21 57.437	+3.2292	− 45	+ 8 50 37.41	+12.678	− 71
123	[ξ Tauri]	3.75	B 8	3 24 17.571	+3.2521	+ 39	+ 9 32 57.63	+12.560	− 32
122	2 H. Camelopard.	4.44	B 9 p	3 24 45.467	+4.8593	− 2	+59 45 27.43	+12.558	0
124	[σ Persei]	4.55	K 0	3 26 49.591	+4.2313	+ 8	+47 48 50.61	+12.442	+ 24
125	5 Tauri	4.28	K 0	3 27 56.572	+3.3131	+ 15	+12 45 23.28	+12.345	+ 3
1097	[17 Eridani]	4.80	B 9	3 27 59.103	+2.9771	+ 8	− 5 15 20.07	+12.352	+ 13
126	[ϰ Reticuli]	4.80	F 5	3 28 26.760	+1.0475	+ 549	−63 7 25.78	+12.689	+381
1098	[+34° 674 Pers]	5.80	B 3	3 29 17.071	+3.8210	− 7	+35 16 59.18	+12.252	+ 4
127	ε Eridani	3.81	K 0	3 30 25.877	+2.8270	− 660	− 9 38 11.31	+12.190	+ 21
128	[45 G. Horologii]	5.60	K 0	3 30 59.730	+1.7879	+ 75	−50 33 27.74	+12.218	+ 87
1099	[τ⁵ Eridani]	4.32	B 8	3 31 26.703	+2.6500	+ 30	−21 48 34.28	+12.074	− 25
1100	[20 Eridani]	5.32	A 0 p	3 33 52.396	+2.7335	+ 17	−17 38 28.86	+11.924	− 5
1101	[10 Tauri]	4.40	G 5	3 34 9.913	+3.0621	− 155	+ 0 14 5.25	+11.428	−480
130	[110 G. Eridani]	4.58	K 0	3 35 11.448	+2.1527	− 13	−40 26 51.07	+11.814	− 23
1102	[τ Fornacis]	6.08	A 0	3 36 35.278	+2.4959	+ 13	−28 6 54.59	+11.764	+ 27
129	[Grb 716 Caml]	5.32	M 0	3 37 32.044	+5.2071	− 27	+63 2 49.69	+11.685	+ 17
1103	[11 Tauri]	6.15	A 0	3 37 36.033	+3.5845	+ 8	+25 9 34.78	+11.655	− 10
131	δ Persei	3.10	B 5	3 39 8.431	+4.2729	+ 31	+47 37 11.78	+11.522	− 32
133	[δ Fornacis]	4.93	B 5	3 40 8.320	+2.3862	0	−32 6 23.73	+11.504	+ 19
135	[δ Eridani]	3.72	K 0	3 40 42.425	+2.8747	− 63	− 9 56 29.66	+12.190	+746
134	ν Persei	3.93	F 5	3 41 35.063	+4.0773	− 8	+42 24 46.48	+11.380	0
136	[17 Tauri]	3.81	B 5 p	3 41 43.370	+3.5635	+ 15	+23 56 53.85	+11.329	− 41
137	[24 Eridani]	5.09	B 8	3 41 48.805	+3.0477	0	− 1 19 44.20	+11.360	− 3
1104	[29 Tauri]	5.36	B 3	3 42 51.266	+3.1883	+ 12	+ 5 53 7.78	+11.284	− 5
141	β Reticuli	3.80	K 0	3 43 31.654	+0.7521	+ 481	−64 58 23.90	+11.324	+ 82
139	η Tauri	2.96	B 5 p	3 44 19.725	+3.5672	+ 15	+23 56 34.11	+11.138	− 44
140	τ⁶ Eridani	4.33	F 8	3 44 33.975	+2.5813	− 116	−23 24 18.39	+10.641	−524

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Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Verände-rung 1947.5	Jährl. Eigen-bew. in 0.s0001	Dekl. 1947.0	Jährl. Verände-rung 1947.5	Jährl. Eigen-bew. in 0."001
		m		h m s	s		° ′ ″	″	
138	γ Camelopard.	4.67	A 0	3 44 43.580	+6.3334	+ 38	+71 10 18.27	+11.112	— 38
142	[27 Tauri]	3.80	B 8	3 46 0.327	+3.5682	+ 13	+23 53 34.59	+11.017	— 43
143	138 G. Eridani	4.24	K 0	3 47 28.153	+2.2452	— 43	—36 21 34.74	+10.910	— 43
146	γ Hydri	3.17	M 0	3 48 2.268	—0.9279	+130	—74 24 6.49	+11.033	+120
1105	+57° 752 Caml	5.79	A 0	3 49 24.159	+4.8721	+106	+57 49 10.78	+10.712	— 98
1106	[Pi 3h 187 Taur]	5.96	F 0	3 50 7.922	+3.4316	+100	+17 10 14.68	+10.730	— 27
1107	[145 G. Eridani]	6.55	B 9	3 50 32.442	+2.9384	— 5	— 6 47 24.89	+10.729	+ 1
144	ζ Persei	2.91	B 1	3 50 47.652	+3.7723	+ 7	+31 43 40.43	+10.698	— 10
1108	[55 G. Horologii]	5.77	K 0	3 51 54.694	+1.8592	+ 29	—47 2 55.11	+10.596	— 30
147	ε Persei	2.96	B 1	3 54 17.363	+4.0271	+ 18	+39 51 31.19	+10.422	— 26
148	ξ Persei	4.05	O e 5	3 55 31.152	+3.8940	+ 4	+35 38 25.35	+10.355	— 1
149	γ Eridani	3.19	K 5	3 55 33.287	+2.7996	+ 44	—13 39 28.85	+10.247	—108
1109	[17 G. Reticuli]	6.14	F 2	3 57 34.430	+1.2885	+ 33	—57 15 7.56	+10.220	+ 16
150	λ Tauri	3.8–4.1	B 3	3 57 44.410	+3.3246	— 4	+12 20 31.45	+10.179	— 11
1110	[δ Reticuli]	4.41	M 0	3 57 54.087	+0.9498	+ 8	—61 32 57.97	+10.166	— 13
1111	[35 Eridani]	5.25	B 5	3 58 50.721	+3.0405	+ 14	— 1 41 48.36	+10.095	— 12
151	ν Tauri	3.94	A 0	4 0 20.008	+3.1919	+ 1	+ 5 50 37.53	+ 9.995	+ 1
1114	[63 G. Hydri]	6.72	A 0	4 1 1.539	—0.3511	+ 57	—71 18 50.10	+ 9.984	+ 41
1112	[37 Tauri]	4.50	K 0	4 1 33.425	+3.5478	+ 66	+21 56 19.54	+ 9.847	— 54
1113	[λ Persei]	4.33	A 0	4 2 37.504	+4.4708	— 10	+50 12 33.92	+ 9.783	— 36
153	174 G. Eridani	5.57	A 5	4 3 26.281	+2.4733	+153	—27 47 44.23	+ 9.863	+105
152	48 Persei	4.03	B 3 p	4 4 48.246	+4.3569	+ 24	+47 34 22.94	+ 9.625	— 27
1115	[43 Tauri]	5.67	G 5	4 6 4.444	+3.4961	+ 76	+19 28 14.59	+ 9.527	— 29
1116	[44 Tauri]	5.55	F 0	4 7 35.891	+3.6548	— 22	+26 20 39.54	+ 9.402	— 36
154	o^1 Eridani	4.14	F 2	4 9 16.560	+2.9291	+ 6	— 6 58 27.79	+ 9.394	+ 86
1117	[μ Persei]	4.28	G 0	4 10 59.789	+4.4063	+ 8	+48 16 36.12	+ 9.156	— 18
155	α Horologii	3.83	K 0	4 12 14.601	+1.9878	+ 32	—42 25 26.68	+ 8.875	—204
1118	[μ Tauri]	4.32	B 3	4 12 39.184	+3.2585	+ 15	+ 8 45 40.11	+ 9.027	— 19
156	α Reticuli	3.36	G 5	4 13 44.205	+0.7732	+ 61	—62 36 21.91	+ 9.016	+ 53
157	[γ Doradus]	4.36	F 5	4 14 38.122	+1.5721	+107	—51 37 10.07	+ 9.084	+192
159	[γ Tauri]	3.86	K 0	4 16 46.411	+3.4150	+ 81	+15 30 4.52	+ 8.700	— 23
158	[54 Persei]	5.10	G 5	4 16 57.779	+3.8965	— 20	+34 26 26.07	+ 8.701	— 6
1119	[208 G. Eridani]	6.65	B 9	4 17 45.013	+2.7164	+ 16	—16 33 46.87	+ 8.643	— 4
161	[212 G. Eridani]	5.31	A 0	4 18 20.199	+2.6176	+ 19	—20 45 53.35	+ 8.592	— 8
162	δ Tauri	3.93	K 0	4 19 52.470	+3.4608	+ 76	+17 25 11.46	+ 8.451	— 27
1120	[ξ Eridani]	5.23	A 2	4 21 2.344	+2.9877	— 36	— 3 51 59.84	+ 8.331	— 55
163	[η Reticuli]	5.18	K 0	4 21 18.611	+0.6495	+128	—63 30 42.66	+ 8.541	+175
166	[δ Mensae]	5.62	K 0 p	4 21 30.544	—4.0488	+129	—80 20 23.74	+ 8.421	+ 69
1121	[43 Eridani]	4.06	K 5	4 22 2.629	+2.2534	+ 46	—34 8 19.65	+ 8.361	+ 54
1122	[+69° 258 Caml]	7.02	K 0	4 24 16.397	+6.3011	+ 16	+69 15 44.98	+ 8.096	— 30

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.ˢ0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
164	ε Tauri	3.63	K o	4 25 31.076	+3.5040	+ 77	+19 3 52.45	+7.994	— 34
1123	[Br 615 Taur]	5.50	B 8	4 25 47.570	+3.1012	+ 9	+ 1 15 53.14	+7.987	— 20
165	[1 Camelop. sq]	5.86	B 1	4 27 49.298	+4.7532	0	+53 47 52.47	+7.842	— 1
167	[δ Caeli]	5.16	B 3	4 29 12.593	+1.8378	+ 1	—45 3 59.62	+7.734	+ 2
1124	[57 Persei]	6.07	F o	4 29 40.728	+4.2225	+ 6	+42 57 9.84	+7.697	+ 4
1125	[ρ Tauri]	4.75	A 5	4 30 50.220	+3.4052	+ 68	+14 44 4.75	+7.577	— 23
171	α Doradus	3.47	A op	4 32 50.894	+1.2969	+ 57	—55 9 13.85	+7.443	+ 5
168	α Tauri	1.06	K 5	4 32 52.574	+3.4432	+ 47	+16 24 15.78	+7.247	—188
170	[υ² Eridani]	3.88	K o	4 33 29.304	+2.3327	— 39	—30 40 10.99	+7.376	— 10
169	ν Eridani	4.12	B 2	4 33 40.110	+2.9983	+ 2	— 3 27 33.69	+7.368	— 2
172	53 Eridani	3.98	K o	4 35 45.095	+2.7482	— 48	—14 24 22.74	+7.040	—161
1127	[258 G. Eridani]	5.59	K o	4 37 54.473	+2.4962	— 45	—24 35 5.36	+7.043	+ 18
1126	[Pi 4ʰ 148 Taur]	5.68	A o	4 38 0.447	+3.7560	+ 28	+28 30 50.68	+6.984	— 32
1129	[α Caeli]	4.52	F 2	4 38 51.106	+1.9324	—138	—41 57 50.45	+6.871	— 77
174	τ Tauri	4.33	B 5	4 39 3.601	+3.6017	— 1	+22 51 25.28	+6.915	— 15
1128	[Grb 866 Pers]	5.77	B 8	4 39 19.393	+4.5613	— 2	+49 52 28.93	+6.889	— 19
1130	[β Caeli]	5.08	F 5	4 40 10.890	+2.1213	+ 30	—37 14 48.33	+7.038	+199
1131	[56 Eridani]	5.87	B 5	4 41 32.378	+2.8826	— 3	— 8 36 4.04	+6.726	0
173	Grb 848 Caml	6.04	F o	4 41 39.833	+8.0772	+103	+75 50 55.08	+6.577	—135
176	[μ Eridani]	4.18	B 5	4 42 50.996	+3.0003	+ 9	— 3 21 1.09	+6.609	— 10
175	4 Camelopard.	5.35	A 2	4 43 34.732	+4.9994	+ 65	+56 39 55.91	+6.411	—145
177	[μ Mensae]	5.69	B 9	4 43 35.057	—0.5973	+ 20	—71 1 42.61	+6.594	+ 34
1132	[268 G. Eridani]	5.97	A 2	4 44 18.703	+2.3961	+ 1	—28 10 55.76	+6.514	+ 16
1133	[Br 658 Pers]	5.10	K 2	4 46 20.268	+4.0394	— 30	+37 23 48.08	+6.368	+ 39
1134	[π³ Orionis]	3.31	F 8	4 46 57.625	+3.2573	+312	+ 6 52 13.46	+6.296	+ 19
1135	[97 Tauri]	5.12	F o	4 48 16.220	+3.5105	+ 57	+18 45 4.99	+6.135	— 34
179	[π⁴ Orionis]	3.78	B 3	4 48 22.838	+3.1959	— 2	+ 5 30 57.90	+6.162	+ 3
178	α Camelopard.	4.38	B o	4 48 45.905	+5.9656	+ 3	+66 15 20.37	+6.135	+ 9
1136	[o¹ Orionis]	5.19	M o	4 49 31.865	+3.3943	— 3	+14 9 50.26	+6.008	— 56
180	π⁵ Orionis	3.87	B 3	4 51 29.283	+3.1255	— 3	+ 2 21 19.67	+5.903	+ 3
181	ι Aurigae	2.90	K 2	4 53 32.263	+3.9078	+ 3	+33 5 2.82	+5.710	— 18
1138	[η Mensae]	5.28	K o	4 56 41.690	—1.7234	+ 71	—75 1 9.27	+5.526	+ 59
183	ε Aurigae	3.1–3.8	F 5p	4 58 9.622	+4.3063	+ 4	+43 44 49.30	+5.334	— 6
182	β Camelopard.	4.22	G op	4 58 41.591	+5.3381	— 6	+60 22 2.82	+5.280	— 14
1137	[ζ Aurigae]	4.9-5.6	K o + B 1	4 58 46.101	+4.1946	+ 10	+41 0 2.03	+5.267	— 22
184	ι Tauri	4.70	A 5	4 59 55.463	+3.5867	+ 47	+21 30 57.85	+5.151	— 40
1139	[26 G. Caeli]	6.00	K o	5 0 22.361	+2.2704	— 8	—31 50 50.23	+5.237	+ 83
1140	[11 Orionis]	4.65	B 9	5 1 32.262	+3.4289	+ 11	+15 19 55.09	+5.021	— 34
185	η Aurigae	3.28	B 3	5 2 47.588	+4.2081	+ 27	+41 9 53.82	+4.882	— 66
186	ε Leporis	3.29	K 5	5 3 12.958	+2.5401	+ 18	—22 26 27.27	+4.845	— 69

Mittlere Sternörter 1947.0

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0s.0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0".001
		m		h m s	s		° ′ ″	″	
187	[η² Pictoris]	4.92	K 5	5 3 35.446	+1.5534	+ 55	−49 38 55.99	+4.882	0
189	[ζ Doradus]	4.76	F 8	5 4 35.914	+1.0282	− 52	−57 32 40.34	+4.916	+118
188	β Eridani	2.92	A 3	5 5 14.526	+2.9497	− 64	− 5 9 12.34	+4.664	− 77
1143	[13 G. Pictoris]	7.10	A 0	5 5 51.610	+1.7817	+ 25	−44 53 23.60	+4.715	+ 25
1142	[16 Orionis]	5.42	A 2	5 6 24.541	+3.3010	+ 41	+ 9 45 47.35	+4.639	− 3
1141	[+27°732 Taur *pr*]	5.97	A 3	5 6 25.223	+3.7677	+ 43	+27 57 53.91	+4.574	− 66
190	[λ Eridani]	4.34	B 2	5 6 36.490	+2.8716	+ 1	− 8 49 14.14	+4.622	− 3
192	μ Aurigae	4.78	A 3	5 9 47.831	+4.1061	− 17	+38 25 25.37	+4.274	− 78
1144	[μ Leporis]	3.30	A op	5 10 32.942	+2.6952	+ 28	−16 16 0.84	+4.262	− 28
194	β Orionis	0.34	B 8p	5 11 59.351	+2.8836	+ 2	− 8 15 41.09	+4.166	− 1
193	α Aurigae	0.21	G 0	5 12 46.176	+4.4332	+ 81	+45 56 47.08	+3.675	−423
191	19 H. Camelop.	5.24	F 8	5 13 46.913	+9.8915	−292	+79 10 30.86	+4.165	+159
196	ϑ Doradus	4.78	K 0	5 13 47.475	−0.0469	+ 10	−67 14 42.05	+4.049	+ 35
195	[τ Orionis]	3.68	B 5	5 15 1.867	+2.9135	− 11	− 6 54 0.74	+3.898	− 8
1145	[λ Aurigae]	4.85	G 0	5 15 24.553	+4.2212	+458	+40 3 14.81	+3.209	−663
197	[o Columbae]	4.91	K 0	5 15 34.293	+2.1639	+ 69	−34 56 45.52	+3.522	−338
1146	[λ Leporis]	4.29	B 1	5 17 7.912	+2.7644	− 2	−13 13 48.32	+3.723	− 2
198	[12 G. Columbae]	5.75	A 0	5 17 16.878	+2.3925	+ 5	−27 25 19.41	+3.708	− 4
199	[ζ Pictoris]	5.52	F 8	5 18 3.939	+1.4711	+ 10	−50 39 43.67	+3.880	+234
1147	[22 Orionis]	4.65	B 3	5 19 3.285	+3.0631	− 2	− 0 25 59.71	+3.558	− 1
201	γ Orionis	1.70	B 2	5 22 17.183	+3.2182	− 6	+ 6 18 11.80	+3.266	− 15
202	β Tauri	1.78	B 8	5 22 56.337	+3.7932	+ 20	+28 33 52.58	+3.049	−175
1148	[115 Tauri]	5.31	B 3	5 24 4.435	+3.5004	+ 4	+17 55 6.17	+3.103	− 24
203	17 Camelopard.	5.75	K 5	5 25 9.403	+5.6677	− 7	+63 1 33.12	+3.029	− 2
1149	[18 G. Columbae]	5.85	A 2	5 25 23.103	+1.9246	− 8	−40 59 18.12	+3.109	+ 95
204	[β Leporis]	2.96	G 0	5 25 58.396	+2.5713	+ 1	−20 48 1.58	+2.871	− 91
1150	[18 Camelopard.]	6.46	G 0	5 28 1.135	+5.1400	+146	+57 11 10.80	+2.566	−218
1152	[20 G. Pictoris]	5.54	G 5	5 28 41.922	+1.6494	+ 14	−47 6 53.49	+2.601	−127
1151	[χ Aurigae]	4.88	B 1	5 29 16.529	+3.9057	0	+32 9 17.47	+2.673	− 3
206	δ Orionis	2.48	B 0	5 29 17.826	+3.0654	0	− 0 20 12.29	+2.676	+ 1
207	α Leporis	2.69	F 0	5 30 23.470	+2.6465	+ 2	−17 51 31.81	+2.584	+ 4
208	[φ¹ Orionis]	4.53	B 0	5 31 54.533	+3.2940	− 1	+ 9 27 19.35	+2.446	− 2
205	Grb 966 Caml	6.36	K 5	5 32 37.441	+8.0272	− 20	+75 0 46.37	+2.408	+ 26
209	ι Orionis	2.89	O e 5	5 32 50.332	+2.9352	+ 1	− 5 56 35.18	+2.372	+ 4
212	β Doradus	*4.2-5.7*	F 5 v	5 33 9.712	+0.5203	− 11	−62 31 27.16	+2.350	+ 9
210	ε Orionis	1.75	B 0	5 33 31.346	+3.0446	0	− 1 14 3.04	+2.309	+ 1
214	[γ Mensae]	5.06	K 0	5 33 58.324	−2.3748	+308	−76 22 47.56	+2.567	+294
211	ζ Tauri	3.00	B 3p	5 34 28.506	+3.5860	+ 1	+21 6 43.32	+2.203	− 22
1153	[35 G. Columbae]	6.75	K 2	5 36 0.258	+2.3899	+ 8	−27 14 25.21	+2.083	− 9
215	α Columbae	2.75	B 5 p	5 37 43.693	+2.1730	+ 2	−34 6 4.35	+1.917	− 26

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
216	o Aurigae	5.52	A 0	5 41 47.487	+4.6487	− 10	+49 48 19.68	+1.584	− 3
217	[γ Leporis]	3.80	F 8	5 42 15.168	+2.5018	−206	−22 27 51.75	+1.178	−371
218	[130 Tauri]	5.51	F 0	5 44 20.658	+3.4985	− 4	+17 42 39.60	+1.357	− 8
219	ζ Leporis	3.67	A 2	5 44 33.150	+2.7188	− 12	−14 50 25.36	+1.343	− 5
1154	[δ Doradus]	4.52	A 5	5 44 40.583	+0.1078	− 51	−65 45 19.23	+1.346	+ 7
220	κ Orionis	2.20	B 0	5 45 14.490	+2.8458	+ 2	− 9 41 13.28	+1.284	− 4
1155	[142 G. Orionis]	5.95	G 5	5 45 56.819	+2.9811	+ 37	− 4 6 26.86	+1.024	−202
221	[ν Aurigae]	4.18	K 0	5 47 48.863	+4.1584	− 5	+39 8 6.30	+1.069	+ 7
1156	[γ Pictoris]	4.38	K 0	5 48 51.721	+1.0895	+ 84	−56 10 45.00	+0.910	− 63
222	[δ Leporis]	3.90	K 0	5 49 2.471	+2.5807	+167	−20 52 56.12	+0.307	−649
223	[β Columbae]	3.22	K 0	5 49 5.374	+2.1150	+ 39	−35 47 13.61	+1.357	+404
1159	[37 G. Pictoris]	4.98	K 0	5 49 41.205	+1.3578	+ 5	−52 7 13.23	+0.821	− 79
1158	[136 Tauri]	4.54	A 0	5 49 59.674	+3.7716	+ 4	+27 36 5.89	+0.858	− 14
1157	[ξ Aurigae]	4.92	A 2	5 50 24.111	+5.0284	− 17	+55 41 49.97	+0.856	+ 20
224	α Orionis	0.1—1.2	M 0	5 52 18.076	+3.2485	+ 19	+ 7 23 55.97	+0.682	+ 11
226	[η Leporis]	3.77	F 0	5 53 59.372	+2.7330	− 29	−14 10 33.61	+0.661	+138
225	δ Aurigae	3.88	K 0	5 55 9.701	+4.9407	+ 97	+54 16 59.29	+0.293	−127
227	β Aurigae	2.07	A 0p	5 55 38.383	+4.4015	− 50	+44 56 39.50	+0.376	− 3
1160	[γ Columbae]	4.36	B 3	5 55 39.390	+2.1275	− 2	−35 17 16.23	+0.387	+ 9
1161	[60 Orionis]	5.25	A 0	5 56 5.977	+3.0850	− 10	+ 0 32 58.68	+0.339	+ 1
1162	+33° 1209 Auri	6.80	A 2	5 56 45.241	+3.9444	− 9	+33 8 6.23	+0.287	+ 6
229	η Columbae	4.03	K 0	5 57 31.365	+1.8365	+ 13	−42 49 1.98	+0.198	− 17
1163	[1 Geminorum]	4.30	G 5	6 0 53.838	+3.6474	− 4	+23 16 4.94	−0.185	−104
230	[66 Orionis]	5.70	K 0	6 2 10.242	+3.1700	− 4	+ 4 9 47.74	−0.199	− 7
231	[1 G. Puppis]	6.22	F 8	6 2 56.791	+1.7267	− 88	−45 2 7.51	−0.012	+247
1164	[74 G. Columbae]	5.72	A 0	6 4 3.014	+2.3102	+ 6	−29 45 5.39	−0.396	− 40
232	ν Orionis	4.40	B 2	6 4 32.676	+3.4259	+ 3	+14 46 35.50	−0.423	− 23
1165	[94 G. Leporis]	5.46	A 0	6 6 44.139	+2.5231	+ 9	−22 24 59.89	−0.627	− 36
233	[36 Camelopard.]	5.39	K 0	6 7 31.177	+6.0365	+ 12	+65 43 55.55	−0.690	− 29
1166	[ν Doradus]	5.21	B 9	6 9 4.713	−0.3843	− 95	−68 49 55.80	−0.771	+ 22
235	[δ Pictoris]	4.84	B 1	6 9 15.861	+1.1677	− 19	−54 57 21.85	−0.798	+ 13
239	[α Mensae]	5.14	K 0	6 11 49.328	−1.7862	+304	−74 44 8.91	−1.248	−215
1168	κ Aurigae	4.45	K 0	6 12 0.011	+3.8233	− 55	+29 31 10.24	−1.317	−265
1167	[Br 904 Auri *sq*]	6.42	F 0	6 12 4.682	+4.0433	− 53	+36 9 59.46	−1.051	+ 8
234	22 H. Camelop.	4.73	A 0	6 13 0.533	+6.6123	+ 8	+69 20 30.98	−1.245	−103
1169	[74 Orionis]	5.11	F 5	6 13 27.987	+3.3692	+ 54	+12 17 19.09	−0.993	+186
238	[κ Columbae]	4.51	K 0	6 14 39.862	+2.1339	− 14	−35 7 18.36	−1.200	+ 84
237	[2 Lyncis]	4.42	A 0	6 14 56.842	+5.2939	− 12	+59 1 57.92	−1.290	+ 20
1170	[7 Monocerotis]	5.13	B 3	6 17 9.543	+2.8903	− 4	− 7 47 57.16	−1.501	+ 1
240	ζ Canis maj.	3.10	B 3	6 18 16.635	+2.3035	+ 5	−30 2 18.96	−1.594	+ 5

Mittlere Sternörter 1947.0

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
241	μ Geminorum	3.19	M 0	6 19 45.211	+ 3.6298	+ 40	+22 32 33.46	−1.840	− 112
243	β Canis maj.	1.99	B 1	6 20 21.874	+ 2.6423	− 4	−17 55 41.92	−1.784	− 4
242	ψ1 Aurigae	5.10	K 2	6 20 49.020	+ 4.6212	+ 1	+49 19 2.21	−1.826	− 4
244	8 ε Monocerotis	4.48	A 5	6 20 57.521	+ 3.1795	− 12	+ 4 37 17.14	−1.822	+ 11
1171	[23 G. Canis maj.]	5.39	K 0	6 21 41.929	+ 2.7990	− 35	−11 30 0.72	−1.937	− 40
1172	[Grb 1156 Auri]	7.14	G 5	6 22 35.323	+ 4.2701	0	+41 59 27.49	−1.986	− 11
245	α Carinae	−0.86	F 0	6 22 46.472	+ 1.3324	+ 24	−52 39 57.35	−1.964	+ 25
246	10 Monocerotis	4.98	B 3	6 25 20.460	+ 2.9627	− 6	− 4 43 40.16	−2.209	+ 4
1173	[ν Geminorum]	4.06	B 5	6 25 48.941	+ 3.5625	− 4	+20 14 50.81	−2.274	− 18
1174	[13 Monocerotis]	4.50	A 0 p	6 30 2.231	+ 3.2445	− 2	+ 7 22 24.27	−2.629	− 7
1175	[56 G. Monocer.]	5.02	B 3	6 30 56.408	+ 3.0451	− 9	− 1 10 42.60	−2.724	− 24
249	ξ2 Canis maj.	4.54	A 0	6 32 50.022	+ 2.5146	+ 6	−22 55 17.52	−2.849	+ 14
247	8 Lyncis	6.05	G 0	6 32 51.028	+ 5.4829	−289	+61 31 49.80	−3.145	− 279
251	γ Geminorum	1.93	A 0	6 34 39.004	+ 3.4662	+ 30	+16 26 46.52	−3.066	− 44
250	51 Aurigae	5.71	K 0	6 34 59.213	+ 4.1572	− 22	+39 26 22.52	−3.165	− 115
252	ν Puppis	3.18	B 8	6 36 8.282	+ 1.8356	− 7	−43 8 54.34	−3.150	− 1
248	23 H. Camelop.	5.60	F 8	6 37 13.606	+10.2451	−310	+79 37 37.75	−3.855	− 608
254	ε Geminorum	3.18	G 5	6 40 40.286	+ 3.6912	− 5	+25 11 7.56	−3.556	− 15
256	ξ Geminorum	3.40	F 5	6 42 18.863	+ 3.3673	− 80	+12 57 15.86	−3.877	− 195
257	*α Canis maj.	−1.58	A 0	6 42 48.798	+ 2.6434	−373	−16 38 31.58	−4.935	−1211
255	[ψ5 Aurigae]	5.34	G 0	6 42 55.232	+ 4.3246	− 1	+43 37 56.45	−3.572	+ 162
1176	[ψ6 Aurigae]	5.28	K 0	6 43 37.258	+ 4.5740	− 4	+48 50 52.06	−3.790	+ 5
1177	16 Monocerotis	5.84	B 3	6 43 38.948	+ 3.2720	− 7	+ 8 38 41.63	−3.805	− 8
264	[ζ Mensae]	5.64	A 2	6 44 29.646	− 4.9892	− 23	−80 45 36.59	−3.804	+ 59
258	18 Monocerotis	4.70	K 0	6 45 5.787	+ 3.1283	− 14	+ 2 28 18.24	−3.934	− 13
1178	[31 G. Puppis]	5.25	B 9	6 45 32.446	+ 2.0527	− 19	−37 52 12.52	−3.974	− 16
1179	[80 G. Monocer.]	5.65	A 0	6 46 36.182	+ 3.0216	− 11	− 2 12 38.20	−4.045	+ 4
262	α Pictoris	3.30	A 5	6 47 38.854	+ 0.6155	−108	−61 53 2.53	−3.868	+ 269
1180	[κ Canis maj.]	3.78	B 2 p	6 47 51.589	+ 2.2412	− 10	−32 26 45.97	−4.153	+ 4
259	[43 Camelopard.]	5.13	B 5	6 47 59.999	+ 6.4697	+ 2	+68 57 11.19	−4.167	+ 4
263	[τ Puppis]	2.83	K 0	6 48 37.177	+ 1.4884	+ 26	−50 33 2.47	−4.294	− 72
261	ϑ Geminorum	3.64	A 2	6 49 17.809	+ 3.9544	− 1	+34 1 37.56	−4.333	− 52
266	ϑ Canis maj.	4.25	K 2	6 51 43.594	+ 2.7876	− 95	−11 58 15.06	−4.502	− 14
267	[ι Volantis]	5.52	B 8	6 52 3.703	− 0.6870	− 10	−70 53 51.85	−4.494	+ 20
260	24 H. Camelop.	4.75	K 5	6 52 22.004	+ 8.7529	+210	+77 2 57.46	−4.557	− 12
268	ε Canis maj.	1.63	B 1	6 56 32.521	+ 2.3584	+ 4	−28 53 55.54	−4.894	+ 2
1181	[101 G. Monoc.]	5.84	A 0	6 57 50.874	+ 2.8823	− 15	− 8 19 54.03	−5.017	− 10
1182	[ω Geminorum]	5.21	K 0	6 59 11.057	+ 3.6556	− 7	+24 17 34.01	−5.124	− 3
1183	[σ Canis maj.]	3.68	K 5	6 59 36.413	+ 2.3904	− 4	−27 51 27.93	−5.155	+ 1
270	[o2 Canis maj.]	3.12	B 5 p	7 0 48.633	+ 2.5056	− 1	−23 45 16.63	−5.256	+ 2

Nr. 257. Ort des Schwerpunktes. Die Reduktion auf den Hauptstern ist nach den Elementen von Volet, Bull. Astr. II, Bd. 7, 1931:

1947.0 $\Delta\alpha = +0.^s010$ $\Delta\delta = +1.''09$
1948.0 $= -0.010$ $= +1.16$

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″.001
		m m		h m s	s		° ′ ″	″	
269	ζ Geminorum	3.7–4.1	G o p	7 0 57.951	+3.5584	— 7	+20 38 59.29	−5.274	— 3
271	γ Canis maj.	4.07	B 5	7 1 21.587	+2.7147	+ 1	−15 33 12.92	−5.313	— 9
1184	[C Puppis]	5.26	A 2	7 2 21.874	+1.9018	— 20	−42 15 28.91	−5.321	+ 67
272	[27 G. Carinae]	5.30	A o	7 3 18.997	+1.1173	— 12	−56 40 7.06	−5.466	+ 2
1185	[2 G. Canis min.]	5.92	K o	7 4 57.534	+3.2431	— 3	+ 7 33 21.58	−5.643	— 36
273	δ Canis maj.	1.98	F 8 p	7 6 14.122	+2.4397	— 3	−26 18 28.14	−5.709	+ 5
1186	[20 Monocerotis]	5.02	K o	7 7 35.695	+2.9803	— 1	— 4 9 10.46	−5.613	+ 215
274	63 Aurigae	5.07	K 2	7 8 0.728	+4.1266	+ 36	+39 24 32.27	−5.866	— 2
1187	[22 δ Monocerot.]	4.09	A o	7 9 9.428	+3.0639	— 3	— 0 24 12.49	−5.952	+ 6
1189	[γ² Volantis]	3.87	K o	7 9 12.300	−0.5078	+ 44	−70 24 47.31	−5.862	+ 98
1188	[51 Geminorum]	5.31	M 3	7 10 19.680	+3.4451	+ 6	+16 15 2.04	−6.100	— 43
275	[I Puppis]	4.47	F o	7 11 2.878	+1.7101	—142	−46 40 11.97	−6.018	+ 98
1190	[Grb 1281 Lynx]	5.55	G o	7 11 54.264	+4.4557	+ 36	+47 20 10.32	−6.373	— 184
276	[64 Aurigae]	5.75	A 3	7 14 21.251	+4.1717	— 16	+40 58 46.31	−6.380	+ 11
277	λ Geminorum	3.65	A 2	7 15 2.851	+3.4477	— 35	+16 38 15.62	−6.487	— 39
278	π Puppis	2.74	K 5	7 15 16.201	+2.1193	— 8	−37 0 4.10	−6.457	+ 9
281	δ Volantis	4.02	F 5	7 16 51.746	−0.0293	— 12	−67 51 36.81	−6.598	— 2
279	δ Geminorum	3.52	F o	7 16 57.518	+3.5831	— 19	+22 4 53.96	−6.621	— 14
280	19 Lyncis *sq*	5.61	B 8	7 18 32.973	+4.8953	— 8	+55 23 0.91	−6.773	— 35
1191	[66 Aurigae]	5.28	K o	7 20 28.452	+4.1547	— 5	+40 46 34.89	−6.925	— 29
283	[η Canis maj.]	2.43	B 5 p	7 21 59.853	+2.3733	— 5	−29 11 54.83	−7.015	+ 6
282	ι Geminorum	3.89	K o	7 22 26.196	+3.7262	— 92	+27 54 18.64	−7.146	— 89
1192	[169 G. Can. maj.]	5.82	F o	7 22 42.215	+2.7555	—142	−13 38 46.89	−7.090	— 11
285	β Canis minor.	3.09	B 8	7 24 16.594	+3.2535	— 38	+ 8 23 51.68	−7.247	— 40
284	Grb 1308 Caml	5.80	K o	7 25 22.945	+6.2425	— 22	+68 34 36.85	−7.339	— 40
286	ρ Geminorum	4.18	F o	7 25 42.265	+3.8587	+116	+31 53 29.93	−7.152	+ 172
1193	[6 Canis minor.]	4.85	K o	7 26 50.800	+3.3396	— 1	+12 7 4.14	−7.433	— 17
1194	[σ Puppis]	3.28	K 5	7 27 32.880	+1.9034	— 58	−43 11 35.31	−7.283	+ 190
287	*α Geminorum	1.99 2.85	A o A o	7 31 13.179	+3.8292	—138	+32 0 23.01	−7.874	— 103
288	[108 G. Puppis]	4.52	F 8	7 31 46.944	+2.5677	— 38	−22 10 49.85	−7.781	+ 35
1196	[υ Geminorum]	4.22	K 5	7 32 39.510	+3.6969	— 26	+27 0 54.96	−7.996	— 110
1195	[+46° 1286 Lynx]	5.80	K 5	7 32 41.068	+4.3556	— 29	+46 17 56.75	−7.928	— 39
1198	[Q Carinae]	4.92	K 5	7 34 21.021	+1.4837	+ 15	−52 24 53.51	−8.042	— 21
1197	[125 G. Puppis]	5.66	B 3	7 34 21.218	+2.6372	— 4	−19 34 58.67	−8.019	+ 3
289	25 Monocerotis	5.17	F 5	7 34 38.539	+2.9828	— 51	— 3 59 28.54	−8.030	+ 16
290	[127 G. Puppis]	4.62	B 8	7 35 24.330	+2.2196	— 27	−34 50 53.30	−8.088	+ 18
291	*α Canis min.	0.48	F 5	7 36 31.692	+3.1403	—474	+ 5 21 44.28	−9.226	—1029
292	24 Lyncis	4.96	A 2	7 38 31.975	+5.0760	— 53	+58 50 12.22	−8.411	— 54
293	[26 α Monocer.]	4.07	K o	7 38 42.868	+2.8666	— 51	— 9 25 34.36	−8.394	— 24
294	κ Geminorum	3.70	G 5	7 41 14.994	+3.6220	— 23	+24 31 36.48	−8.625	— 54

Nr. 287. Ort des Schwerpunktes. Die Reduktion auf den Ort des helleren Sterns beträgt nach den Elementen von Rabe, Astron. Nachr. Bd. 216, 1922:

1947.0 $\Delta\alpha = -0^s.003$ $\Delta\delta = +0''.72$
1948.0 $= -0.007$ $= +0.64$

Nr. 291. Ort des Schwerpunktes. Die Reduktion auf den Ort des hellen Sterns beträgt nach den Elementen von Jones, Monthly Notices Bd. 88, 1928:

1947.0 $\Delta\alpha = -0^s.016$ $\Delta\delta = -1''.16$
1948.0 $= -0.023$ $= -1.12$

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ' "	"	
295	β Geminorum	1.21	K o	7 42 4.503	+3.6711	—475	+28 9 21.15	— 8.689	— 53
297	ζ Volantis	3.89	K o	7 42 29.168	—0.7376	+ 58	—72 28 44.65	— 8.649	+ 18
1200	[81 Geminorum]	5.02	K 2	7 43 3.407	+3.4737	— 54	+18 38 27.29	— 8.776	— 61
1199	[+37° 1769 Lynx]	5.45	M o	7 43 7.267	+4.0028	+ 15	+37 38 50.99	— 8.712	+ 7
1201	[11 Canis minor.]	5.30	A o	7 43 21.187	+3.3025	— 22	+10 53 56.14	— 8.761	— 24
1202	[4 Puppis]	5.11	F o	7 43 30.383	+2.7627	— 10	—14 26 1.35	— 8.745	+ 4
296	π Geminorum	5.29	K 2	7 44 5.526	+3.8684	— 9	+33 32 51.14	— 8.827	— 31
1203	[187 G. Puppis]	5.26	B 2	7 45 55.345	+1.8127	— 13	—46 28 33.87	— 8.935	+ 4
1204	[ξ Puppis]	3.47	G o p	7 47 3.852	+2.5235	— 3	—24 43 32.16	— 9.031	— 3
1206	[61 G. Carinae]	5.82	F 2	7 48 20.374	+0.9905	— 95	—60 9 3.58	— 8.976	+151
1205	[ζ Canis minor.]	5.11	B 8	7 48 57.057	+3.1112	— 15	+ 1 54 12.77	— 9.180	— 5
1207	[φ Geminorum]	4.99	A 2	7 50 15.338	+3.6715	— 28	+26 54 16.59	— 9.312	— 35
301	[213 G. Puppis]	3.76	G 5	7 50 23.602	+2.0620	— 21	—40 26 17.30	— 9.286	0
299	[26 Lyncis]	5.69	K o	7 50 51.529	+4.3682	— 50	+47 42 14.34	— 9.326	— 2
300	Grb 1374 Caml	5.56	K o	7 53 53.518	+7.1824	— 30	+74 3 45.98	— 9.593	— 35
1208	[1 Cancri]	5.96	K o	7 53 58.954	+3.4061	— 23	+15 56 0.03	— 9.610	— 45
1209	[Grb 1384 Lynx]	6.47	K o	7 54 33.555	+4.2141	+ 38	+44 7 15.13	— 9.601	+ 8
303	χ Carinae	3.60	B 3	7 55 25.824	+1.5251	— 41	—52 50 21.54	— 9.645	+ 29
1210	[225 G. Puppis]	4.85	A 2	7 55 33.278	+2.3919	— 6	—30 11 27.27	— 9.678	+ 6
304	[27 Monocerotis]	5.06	K o	7 57 5.242	+2.9969	— 43	— 3 32 1.43	— 9.803	— 1
302	[53 Camelop.]	6.00	A 2 p	7 57 11.524	+5.1227	— 74	+60 28 17.71	— 9.832	— 22
1212	[232 G. Puppis]	4.64	A 2	7 57 29.459	+2.6885	— 6	—18 15 9.80	— 9.883	— 50
1211	[ω Cancri]	5.88	K o	7 57 43.582	+3.6300	+ 8	+25 32 22.07	— 9.851	0
1213	[161 G. Monocer.]	6.30	G o	7 59 49.715	+2.9484	+ 7	— 6 11 17.87	—10.038	— 28
305	χ Geminorum	5.04	K o	8 0 15.939	+3.6845	— 21	+27 56 40.29	—10.090	— 46
306	ζ Puppis	2.27	O d	8 1 43.204	+2.1085	— 30	—39 51 10.17	—10.139	+ 13
307	27 Lyncis	4.87	A 2	8 4 28.747	+4.5126	— 67	+51 39 40.98	—10.370	— 9
308	ρ Puppis	2.88	F 5	8 5 17.158	+2.5554	— 60	—24 9 1.07	—10.370	+ 51
1214	[Pi 7h 308 Lynx]	6.64	F 8	8 6 44.737	+3.9039	+163	+35 36 55.92	—10.767	—237
1215	[3 H. Ursae maj.]	5.48	G 5	8 7 33.849	+5.9719	— 4	+68 37 57.78	—10.586	+ 7
309	γ Velorum	1.92	O a p	8 7 53.905	+1.8492	— 8	—47 10 46.36	—10.609	+ 5
311	20 Puppis	5.05	G 5	8 10 53.744	+2.7576	— 12	—15 37 38.41	—10.843	— 6
310	Br 1147 Caml	5.73	G 5	8 12 56.227	+7.5350	+ 65	+75 55 18.95	—10.973	+ 15
312	β Cancri	3.76	K 2	8 13 38.512	+3.2535	— 34	+ 9 21 1.05	—11.089	— 51
1216	[+4° 1945 Hydra]	6.68	G o + A 2	8 14 31.146	+3.1586	+ 1	+ 4 23 2.24	—11.101	+ 1
313	[289 G. Puppis]	4.43	A 5	8 16 34.194	+2.2457	— 94	—36 29 38.76	—11.159	+ 91
1218	[7 G. Hydrae]	6.32	A 5	8 16 42.597	+2.8740	— 43	— 9 59 57.39	—11.232	+ 29
1217	[χ Cancri]	5.16	F 5	8 16 50.870	+3.6442	— 15	+27 23 26.84	—11.657	—386
314	31 Lyncis	4.43	K 5	8 19 12.833	+4.1075	— 16	+43 21 35.35	—11.546	—104
1219	[294 G. Puppis]	4.94	K o	8 19 17.691	+2.3627	— 13	—32 53 4.92	—11.438	+ 9

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ' "	"	
1220	[20 Cancri]	5.88	F 0	8 20 19.852	+3.4351	− 40	+18 30 13.80	−11.552	− 30
315	ε Carinae	1.74	K 0 + B	8 21 25.664	+1.2313	− 37	−59 20 18.00	−11.580	+ 18
318	ϑ Chamael.	4.26	K 0	8 22 16.277	−1.7947	−386	−77 18 51.04	−11.618	+ 39
1221	[302 G. Puppis *pr*]	5.55	K 5	8 22 46.360	+2.5908	− 22	−23 52 23.41	−11.669	+ 27
316	Br 1197 Hydra	3.95	A 0	8 23 0.726	+2.9979	− 46	− 3 43 56.19	−11.738	− 26
319	[β Volantis]	3.65	K 0	8 25 10.030	+0.6543	− 44	−65 57 34.78	−12.023	−160
1222	[29 Cancri]	5.90	A 2	8 25 39.962	+3.3477	− 13	+14 23 15.52	−11.917	− 16
317	o Ursae maj.	3.47	G 0	8 25 52.655	+4.9846	−185	+60 53 50.63	−12.027	−111
320	Grb 1450 Lynx	6.05	K 0	8 29 28.588	+3.9001	− 86	+38 11 59.06	−12.339	−173
321	η Cancri	5.52	K 0	8 29 38.745	+3.4691	− 35	+20 37 21.32	−12.228	− 49
322	[Grb 1446 Caml]	6.29	K 0	8 33 51.756	+6.6723	− 51	+73 49 3.31	−12.574	−104
1223	[δ Hydrae]	4.18	A 0	8 34 51.061	+3.1760	− 47	+ 5 53 23.26	−12.548	− 12
323	[Grb 1460 UMaj]	6.03	K 0	8 35 22.619	+4.4451	− 39	+52 53 56.50	−12.609	− 37
324	[48 G. Velorum]	4.13	A 5	8 35 46.710	+2.1091	− 17	−42 48 9.90	−12.592	+ 7
1224	[σ Hydrae]	4.54	K 0	8 35 59.263	+3.1359	− 13	+ 3 31 43.37	−12.636	− 21
1225	[34 Lyncis]	5.52	K 0	8 37 21.768	+4.1460	+ 21	+46 1 17.32	−12.623	+ 85
325	[6 Hydrae]	5.15	K 2	8 37 30.746	+2.8422	− 60	−12 17 12.90	−12.723	− 6
1227	o Velorum	3.68	B 3	8 38 46.477	+1.7197	− 22	−52 43 58.60	−12.780	+ 22
1226	[53 G. Velorum]	4.06	F 5 p	8 38 51.980	+1.9911	− 6	−46 27 33.48	−12.804	+ 4
1228	[γ Cancri]	4.73	A 0	8 40 13.286	+3.4717	− 76	+21 39 37.61	−12.944	− 44
327	α Pyxidis	3.70	B 2	8 41 27.660	+2.4110	− 13	−32 59 39.59	−12.973	+ 9
326	δ Cancri	4.17	K 0	8 41 40.513	+3.4091	− 14	+18 21 1.50	−13.230	−233
1229	[25 G. Pyxidis]	6.13	A 2	8 42 32.955	+2.6849	+ 4	−20 58 27.37	−13.030	+ 25
331	[η Chamael.]	5.62	B 9	8 43 10.760	−2.0313	− 78	−78 46 18.51	−13.073	+ 20
328	ι Cancri	4.20	G 5	8 43 29.625	+3.6303	− 19	+28 57 18.73	−13.162	− 45
1230	[14 Hydrae]	5.19	B 9	8 46 41.897	+3.0148	− 18	− 3 14 42.63	−13.351	− 23
332	[γ Pyxidis]	4.19	K 2	8 48 16.869	+2.5465	−101	−27 30 44.55	−13.350	+ 81
334	ζ Hydrae	3.30	K 0	8 52 35.574	+3.1712	− 69	+ 6 8 54.32	−13.699	+ 10
1231	[80 G. Hydrae]	5.90	K 0	8 52 46.270	+2.7583	+ 23	−18 2 18.21	−13.738	− 19
336	108 G. Carinae	3.98	B 8	8 53 50.872	+1.3606	− 25	−60 26 29.52	−13.746	+ 41
335	ι Ursae maj.	3.12	A 5	8 55 35.300	+4.1075	−443	+48 15 4.23	−14.139	−240
337	α Cancri	4.27	A 3	8 55 35.401	+3.2811	+ 22	+12 3 50.84	−13.932	− 34
1233	[109 G. Carinae]	5.29	B 3	8 55 40.606	+1.4679	− 20	−59 1 26.41	−13.892	+ 12
1232	[64 Cancri]	5.64	G 5	8 56 17.650	+3.6839	− 37	+32 37 32.82	−13.983	− 40
339	Br 1268 Lynx	4.09	F 5	8 57 12.388	+3.8944	−395	+41 59 38.35	−14.258	−257
338	ρ Ursae maj.	4.99	M 0	8 57 47.695	+5.4099	− 45	+67 50 17.26	−14.022	+ 16
1234	[91 G. Velorum]	4.42	F 8	8 58 6.579	+2.2398	− 40	−41 2 47.56	−14.017	+ 39
1235	[92 G. Hydrae]	5.80	K 0	8 59 15.511	+3.0649	− 37	− 0 16 27.69	−14.052	+ 76
341	κ Ursae maj.	3.68	A 0	9 0 0.964	+4.0958	− 35	+47 22 3.50	−14.233	− 58
340	[Grb 1501 UMaj]	5.68	A 2	9 0 8.131	+4.3951	− 14	+54 29 39.57	−14.184	− 1

Mittlere Sternörter 1947.0

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″001
		m		h m s	s		° ′ ″	″	
1236	[93 G. Hydrae]	6.74	A 0	9 1 4.938	+2.9905	— 11	— 4 57 37.93	—14.236	+ 5
343	α Volantis	4.18	A 5	9 1 36.959	+0.9487	+ 11	—66 11 2.95	—14.373	—101
342	[97 G. Velorum]	3.69	K 0	9 2 19.453	+2.0686	— 57	—46 53 9.39	—14.331	— 15
1237	[Pi 8^{h}245 Lynx]	4.71	G 5	9 3 9.854	+3.8159	— 27	+38 39 55.34	—14.391	— 22
1238	[κ Cancri]	5.14	B 8	9 4 52.658	+3.2492	— 17	+10 52 57.67	—14.483	— 10
345	λ Velorum	2.22	K 5	9 6 2.661	+2.2067	— 25	—43 13 3.77	—14.527	+ 15
1239	[ξ Cancri]	5.22	G 5	9 6 18.883	+3.4491	0	+22 15 39.59	—14.560	— 1
1240	[101 G. Hydrae]	5.81	K 0	9 6 38.957	+2.8767	+ 8	—12 8 31.72	—14.594	— 15
1241	[ε Pyxidis]	5.63	A 3	9 7 41.546	+2.5432	0	—30 8 52.96	—14.686	— 45
1242	[107 G. Hydrae]	5.81	K 0	9 9 33.011	+2.7484	— 39	—19 31 48.68	—14.717	+ 34
346	[36 Lyncis]	5.30	B 8	9 10 20.690	+3.9237	— 27	+43 26 15.35	—14.838	— 39
347	ϑ Hydrae	3.84	A 0	9 11 36.455	+3.1215	+ 86	+ 2 32 20.12	—15.187	—314
348	β Carinae	1.80	A 0	9 12 37.711	+0.6611	—280	—69 29 55.05	—14.829	+103
351	[ι Carinae]	2.25	F 0	9 15 40.295	+1.6065	— 23	—59 3 8.31	—15.103	+ 5
350	83 Cancri	6.60	F 5	9 16 1.510	+3.3481	— 87	+17 55 52.00	—15.264	—135
352	α Lyncis	3.30	K 5	9 17 49.903	+3.6545	— 181	+34 37 4.27	—15.220	+ 13
1243	[ϑ Pyxidis]	4.93	M 0	9 19 8.710	+2.6566	— 7	—25 44 20.28	—15.317	— 10
353	κ Velorum	2.63	B 3	9 20 28.259	+1.8582	— 12	—54 47 1.05	—15.371	+ 10
1244	[κ Leonis]	4.61	K 0	9 21 34.295	+3.4937	— 25	+26 24 41.85	—15.493	— 49
1245	[28 Hydrae]	5.81	K 5	9 22 45.006	+2.9997	— 11	— 4 53 16.56	—15.522	— 14
354	α Hydrae	2.16	K 2	9 24 58.950	+2.9483	— 10	— 8 25 40.72	—15.605	+ 27
356	ε Antliae	4.64	K 2	9 27 3.320	+2.4764	— 22	—35 43 7.68	—15.754	— 10
355	23 Ursae maj.	3.75	F 0	9 27 22.345	+4.7293	+ 155	+63 17 42.33	—15.736	+ 25
1246	[ξ Leonis]	5.12	G 5	9 29 5.425	+3.2334	— 66	+11 32 7.83	—15.941	— 87
358	ϑ Ursae maj.	3.26	F 8 p	9 29 19.442	+4.0120	—1031	+51 55 12.34	—16.409	—542
361	[N Velorum]	3.4—4.2	K 5	9 29 36.596	+1.8232	— 42	—56 47 59.74	—15.879	+ 2
357	24 Ursae maj.	4.57	G 0	9 29 49.873	+5.3040	— 135	+70 3 53.89	—15.818	+ 75
1247	[160 G. Hydrae]	5.16	K 0	9 30 45.929	+2.7625	— 18	—20 52 49.01	—15.932	+ 11
360	10 Leonis min.	4.62	G 5	9 30 58.941	+3.6750	+ 4	+36 38 2.20	—15.984	— 29
362	[H Carinae]	5.52	K 2	9 31 13.367	+0.4528	— 32	—72 50 44.61	—15.974	— 8
1248	[17 G. Antliae]	5.63	K 0	9 34 52.881	+2.5830	+ 27	—31 56 22.65	—16.183	— 24
1249	[Br 1352 Hydrae]	4.78	K 0	9 35 41.470	+3.1297	— 108	+ 4 53 22.45	—16.256	— 55
1250	[ι Hydrae]	4.10	K 0	9 37 8.960	+3.0640	+ 31	— 0 54 4.73	—16.344	— 69
363	[Grb 1564 UMaj]	5.74	K 0	9 37 44.635	+5.1349	— 141	+69 28 48.85	—16.379	— 74
364	[κ Hydrae]	4.96	B 3	9 37 45.846	+2.8762	— 20	—14 5 27.61	—16.330	— 24
365	[ο Leonis]	3.76	F 5 + A 3	9 38 19.401	+3.2018	— 98	+10 8 3.84	—16.374	— 39
1251	[15 Leonis]	5.73	A 2	9 40 27.096	+3.5164	— 18	+30 13 8.60	—16.552	—109
1252	[ψ Leonis]	5.62	M 0	9 40 50.824	+3.2669	— 1	+14 15 54.62	—16.466	— 4
366	ϑ Antliae	4.98	F 5 p	9 41 50.214	+2.6746	— 38	—27 31 33.82	—16.480	+ 30
367	ε Leonis	3.12	G 0 p	9 42 50.776	+3.4051	— 35	+24 1 9.26	—16.577	— 17

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.ˢ0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
1253	[+19° 2254 Leo]	6.92	K 0	9 42 55.447	+3.3327	+ 16	+18 55 43.10	−16.584	− 19
1254	[l Carinae]	3.6–4.8	G 0	9 43 47.426	+1.6485	− 18	−62 15 46.04	−16.593	+ 13
1255	[Br 1369 U Maj]	5.20	G 0	9 45 10.826	+3.8696	+215	+46 16 8.43	−16.772	− 97
368	υ Ursae maj.	3.89	F 0	9 47 14.282	+4.2657	−386	+59 17 21.13	−16.931	−157
370	6 Sextantis	6.00	A 2	9 48 33.750	+3.0231	+ 5	− 3 59 38.91	−16.870	− 33
1256	[162 G. Velorum]	5.72	K 0	9 49 16.504	+2.3247	− 29	−45 56 42.71	−16.835	+ 35
371	[μ Leonis]	4.10	K 0	9 49 45.191	+3.4117	−162	+26 15 26.93	−16.953	− 60
373	[183 G. Hydrae]	5.16	M 0	9 52 22.125	+2.8303	− 31	−18 45 27.18	−17.062	− 47
1257	[18 G. Sextantis]	7.03	K 0	9 53 29.936	+2.9803	− 20	− 7 23 35.90	−17.074	− 6
372	Grb 1586 UMaj	5.96	K 0	9 53 41.393	+5.3615	−183	+73 7 58.40	−17.119	− 43
374	[19 Leonis min.]	5.19	F 5	9 54 26.733	+3.6740	−107	+41 18 32.27	−17.141	− 30
375	φ Velorum	3.70	B 5	9 54 59.909	+2.1064	− 16	−54 18 53.08	−17.125	+ 11
377	[η Antliae]	5.25	F 0	9 56 35.618	+2.5739	− 81	−35 38 11.87	−17.232	− 25
376	[12 Sextantis]	6.63	A 5	9 56 58.130	+3.1117	− 49	+ 3 38 20.11	−17.206	+ 18
378	π Leonis	4.89	M 0	9 57 24.821	+3.1703	− 23	+ 8 17 57.53	−17.271	− 27
1258	[20 Leonis min.]	5.60	G 5	9 57 57.642	+3.4587	−414	+32 11 6.78	−17.703	−434
1259	[Pi 9ʰ 229 UMaj]	5.74	F 5	10 1 5.778	+3.9871	− 28	+54 8 56.62	−17.417	− 10
1260	[193 G. Hydrae]	5.80	F 0	10 1 53.999	+2.7726	− 71	−24 1 41.92	−17.421	+ 20
1261	[υ² Hydrae]	4.72	B 8	10 2 32.540	+2.9216	− 26	−12 48 25.20	−17.461	+ 8
379	η Leonis	3.58	A 0p	10 4 26.711	+3.2704	− 4	+17 1 18.80	−17.555	− 6
380	α Leonis	1.34	B 8	10 5 33.069	+3.1949	−169	+12 13 37.27	−17.594	+ 3
381	λ Hydrae	3.83	K 0	10 8 0.180	+2.9251	−138	−12 5 29.08	−17.791	− 93
385	[ω Carinae]	3.56	B 8	10 12 28.838	+1.4290	− 45	−69 46 27.74	−17.876	+ 2
382	191 G. Velorum	4.09	A 2	10 12 30.427	+2.5185	−136	−41 51 31.53	−17.839	+ 40
384	ζ Leonis	3.65	F 0	10 13 44.739	+3.3363	+ 11	+23 40 55.75	−17.940	− 12
383	λ Ursae maj.	3.52	A 2	10 13 54.495	+3.6178	−152	+43 10 47.39	−17.979	− 45
1262	[32 Ursae maj.]	5.74	A 3	10 14 12.556	+4.3565	−144	+65 22 25.41	−17.960	− 13
1263	[ε Sextantis]	5.40	F 0	10 14 59.716	+2.9813	−109	− 7 48 12.73	−17.976	+ 1
1264	[187 G. Carinae]	3.44	K 5	10 15 18.581	+2.0039	− 32	−61 4 0.96	−17.983	+ 5
1265	[59 G. Antliae]	5.62	B 9	10 15 41.640	+2.7499	− 14	−28 43 34.94	−17.993	+ 10
1266	[23 Sextantis]	6.53	B 3	10 18 17.790	+3.0981	− 8	+ 2 33 25.23	−18.107	− 4
386	μ Ursae maj.	3.21	K 5	10 19 10.745	+3.5738	− 75	+41 46 0.55	−18.106	+ 29
1268	[204 G. Velorum	4.99	K 5	10 20 2.931	+2.5732	− 28	−41 22 57.78	−18.115	+ 52
1267	[27 Leonis min.]	5.83	A 3	10 20 3.503	+3.4553	− 10	+34 10 35.06	−18.182	− 14
387	30 H. Ursae maj.	4.92	A 0	10 20 20.018	+4.3251	− 24	+65 50 7.09	−18.203	− 25
388	[25 Sextantis]	6.10	B 9	10 20 45.696	+3.0322	− 37	− 3 48 19.89	−18.194	0
1269	[64 G. Antliae]	5.40	A 3	10 21 9.814	+2.6273	−136	−37 44 24.77	−18.263	− 54
391	I Carinae	4.08	F 5	10 23 20.967	+1.1922	− 30	−73 45 41.64	−18.313	− 26
389	μ Hydrae	4.06	K 5	10 23 31.512	+2.9019	− 89	−16 33 54.44	−18.377	− 83
392	α Antliae	4.42	K 5	10 24 43.410	+2.7459	− 57	−30 47 49.96	−18.321	+ 15

Mittlere Sternörter 1947.0

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Verände-rung 1947.5	Jährl. Eigen-bew. in 0ˢ0001	Dekl. 1947.0	Jährl. Verände-rung 1947.5	Jährl. Eigen-bew. in 0″001
		m		h m s	s		° ′ ″	″	
390	β Leonis min.	4.41	K o	10 24 49.472	+3.4688	—102	+36 58 46.06	—18.449	—109
393	196 G. Carinae	4.08	F o	10 25 55.696	+2.2023	— 20	—58 28 5.92	—18.383	— 5
1270	[δ Sextantis]	5.24	B 9	10 26 47.156	+3.0470	— 35	— 2 28 1.95	—18.428	— 19
1271	[+29°2057 LMin]	6.92	K o	10 26 55.621	+3.3646	+ 7	+28 51 10.80	—18.422	— 8
394	36 Ursae maj.	4.84	F 5	10 27 14.907	+3.8386	—218	+56 15 11.09	—18.460	— 35
1272	[46 Leonis]	5.74	M o	10 29 22.119	+3.2025	— 29	+14 24 35.33	—18.481	+ 16
396	[ρ Leonis]	3.85	B op	10 30 1.287	+3.1588	— 6	+ 9 34 47.78	—18.524	— 6
397	[203 G. Carinae]	3.58	B 5p	10 30 8.075	+2.1336	— 27	—61 24 43.92	—18.513	+ 9
395	9 H. Draconis	5.04	G 5	10 30 38.719	+5.0972	— 96	+75 59 12.83	—18.548	— 9
1273	219 G. Velorum	5.14	K o	10 30 42.502	+2.5347	+ 6	—46 43 47.52	—18.542	— 1
399	[44 Hydrae]	5.32	K 2	10 31 29.457	+2.8540	— 7	—23 28 17.31	—18.549	+ 18
398	[37 Ursae maj.]	5.16	F o	10 31 45.732	+3.8641	+ 78	+57 21 22.76	—18.542	+ 34
1274	[236 G. Hydrae]	5.85	F 8	10 33 53.903	+2.9870	+175	—11 56 42.42	—19.326	—680
401	[γ Chamaeleon.]	4.10	M o	10 34 51.513	+0.7114	—125	—78 19 57.51	—18.656	+ 20
1275	[37 Leonis min.]	4.77	G o	10 35 44.550	+3.3763	+ 2	+32 15 7.56	—18.704	+ 1
402	[225 G. Velorum]	4.37	G o	10 37 11.506	+2.3884	— 21	—55 19 36.46	—18.751	— 2
404	33 Sextantis	6.40	K o	10 38 42.371	+3.0520	— 94	— 1 27 44.73	—18.921	—125
403	[35 H. Ursae maj.]	5.23	K o	10 39 18.125	+4.2948	— 8	+69 21 14.84	—18.831	— 17
1277	[78 G. Antliae]	5.73	A o	10 40 15.561	+2.7814	— 23	—32 26 15.60	—18.841	+ 1
1276	[Pi 10^{h}135 UMaj]	5.28	F o	10 40 26.533	+3.5257	—260	+46 28 58.62	—18.922	— 74
405	[41 Leonis min.]	5.05	A 2	10 40 32.232	+3.2618	— 85	+23 27 59.10	—18.845	+ 5
406	ϑ Carinae	3.03	B o	10 41 3.652	+2.1411	— 24	—64 6 58.53	—18.854	+ 12
407	42 Leonis min.	5.37	B 9	10 42 55.325	+3.3356	— 21	+30 57 43.21	—18.961	— 41
1278	[Br 1493 Leo]	6.29	K o	10 43 20.125	+3.1236	— 8	+ 6 39 10.81	—18.973	— 40
1279	[51 Leonis]	5.64	K o	10 43 33.338	+3.2317	+ 64	+19 10 17.22	—18.984	— 45
1280	[250 G. Hydrae]	6.86	K o	10 44 11.447	+2.8516	—121	—25 46 9.41	—18.908	+ 49
411	[δ² Chamaeleon.]	4.62	B 3	10 45 18.553	+0.5650	—153	—80 15 38.04	—18.986	+ 2
409	53 Leonis	5.27	A o	10 46 28.335	+3.1533	— 4	+10 49 34.16	—19.048	— 28
410	[ν Hydrae]	3.32	K o	10 47 0.463	+2.9606	+ 67	—15 54 57.02	—18.841	+195
1281	[41 Sextantis]	5.78	A 2	10 47 38.429	+3.0099	— 5	— 8 36 59.54	—19.074	— 21
412	[46 Leonis min.]	3.92	K o	10 50 21.169	+3.3549	+ 69	+34 30 3.78	—19.410	—285
414	[ι Antliae]	4.70	K o	10 54 14.592	+2.7966	+ 67	—36 51 8.72	—19.356	—132
413	[Br 1508 Draco]	6.26	G 5	10 55 46.393	+4.7940	—246	+78 3 16.72	—19.292	— 31
1282	[47 Ursae maj.]	5.14	G o	10 56 30.271	+3.3595	—281	+40 42 49.36	—19.230	+ 49
1283	[α Crateris]	4.20	K o	10 57 11.376	+2.9233	—323	—18 0 58.18	—19.172	+123
415	239 G. Velorum	4.56	A 2	10 57 42.999	+2.7527	+ 17	—41 56 28.54	—19.311	— 4
1284	[58 Leonis]	5.05	K o	10 57 49.403	+3.0984	+ 8	+ 3 54 8.98	—19.328	— 18
416	β Ursae maj.	2.44	A o	10 58 39.380	+3.6200	+ 97	+56 40 0.97	—19.302	+ 27
1285	[29 G. Leonis]	7.13	G 5	10 59 54.961	+3.0523	— 14	— 3 13 37.36	—19.389	— 30
417	α Ursae maj.	1.95	K o	11 0 28.429	+3.7020	—174	+62 2 15.13	—19.442	— 71

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ′ ″	″	
418	χ Leonis	4.66	F 0	11 2 17.011	+3.0946	−231	+ 7 37 22.55	−19.460	− 49
419	[χ¹ Hydrae]	5.06	F 5	11 2 46.471	+2.8907	−143	−27 0 25.52	−19.426	− 4
1286	[11 G. Crateris]	6.14	A 3	11 2 54.275	+3.0114	+ 10	−10 48 5.75	−19.530	−105
1287	[65 Leonis]	5.66	G 5	11 4 11.988	+3.0603	−255	+ 2 14 36.88	−19.542	− 90
1288	[259 G. Carinae]	5.80	B 3	11 4 54.658	+2.1666	− 39	−70 35 27.25	−19.469	− 2
1289	[260 G. Carinae]	4.02	F 8p	11 6 19.069	+2.5628	− 8	−58 41 15.19	−19.497	− 1
420	ψ Ursae maj.	3.15	K 0	11 6 41.472	+3.3726	− 62	+44 47 11.29	−19.534	− 31
421	β Crateris	4.52	A 2	11 9 2.883	+2.9514	+ 3	−22 32 10.09	−19.653	−103
1290	[275 G.Hydrae]	6.46	M 0	11 9 41.262	+2.8918	+ 14	−32 8 44.18	−19.558	+ 4
1291	[9 G. Centauri]	5.67	A 2	11 10 7.777	+2.7339	− 98	−48 48 46.09	−19.530	+ 41
422	δ Leonis	2.58	A 3	11 11 17.516	+3.1905	+102	+20 48 51.81	−19.728	−136
423	ϑ Leonis	3.41	A 0	11 11 27.618	+3.1479	− 43	+15 43 10.45	−19.677	− 82
424	[Grb 1757 U Maj]	5.97	K 0	11 13 43.144	+3.3804	− 94	+49 45 56.98	−19.651	− 15
1292	[φ Leonis]	4.58	A 5	11 13 57.951	+3.0501	− 75	− 3 21 41.77	−19.683	− 43
425	ν Ursae maj.	3.71	K 0	11 15 37.222	+3.2403	− 23	+33 23 1.53	−19.646	+ 22
1293	[55 Ursae maj.]	4.78	A 2	11 16 14.915	+3.2696	− 49	+38 28 35.52	−19.756	− 77
426	δ Crateris	3.82	K 0	11 16 41.298	+2.9999	− 85	−14 29 29.30	−19.487	+200
427	σ Leonis	4.13	A 0	11 18 24.207	+3.0935	− 64	+ 6 19 12.35	−19.727	− 13
428	π Centauri	4.26	B 5	11 18 34.946	+2.7373	− 31	−54 12 0.93	−19.720	− 4
429	Grb 1771 U Maj	5.98	A 0	11 19 43.376	+3.5641	− 13	+64 37 14.81	−19.706	+ 29
1294	[28 G. Centauri]	6.42	B 3	11 21 49.503	+2.8697	− 15	−42 22 40.23	−19.776	− 10
431	[γ Crateris]	4.14	A 5	11 22 13.862	+2.9977	− 69	−17 23 33.68	−19.773	− 2
1295	[Pi 11ʰ 63 Leo]	7.15	A 2	11 22 57.361	+3.1806	− 23	+27 2 19.44	−19.779	+ 3
1296	[83 Leonis]	6.54	K 0	11 24 4.341	+3.0371	−482	+ 3 18 7.86	−19.620	+177
1297	[τ Leonis]	5.18	K 0	11 25 12.674	+3.0855	+ 12	+ 3 8 54.00	−19.829	− 17
1298	[282 G. Hydrae]	6.79	K 0	11 26 59.786	+2.9713	− 12	−27 44 17.90	−19.842	− 7
432	[58 Ursae maj.]	5.88	F 8	11 27 39.402	+3.2460	− 53	+43 27 51.62	−19.768	+ 76
433	λ Draconis	4.06	M 0	11 28 16.846	+3.5612	− 78	+69 37 25.73	−19.871	− 20
434	ξ Hydrae	3.72	G 5	11 30 23.413	+2.9515	−161	−31 33 50.64	−19.914	− 38
436	λ Centauri	3.34	B 9	11 33 19.525	+2.7672	− 53	−62 43 34.72	−19.913	− 5
435	[C² Centauri]	5.42	F 0	11 33 20.949	+2.9079	+ 28	−47 20 51.18	−19.959	− 51
1299	[ϑ Crateris]	4.81	B 9	11 33 59.451	+3.0436	− 43	− 9 30 32.24	−19.910	+ 4
437	υ Leonis	4.47	K 0	11 34 14.039	+3.0720	+ 2	− 0 31 51.50	−19.878	+ 39
438	[π Chamaeleon.]	5.74	F 0	11 35 3.631	+2.4766	−319	−75 36 10.08	−19.917	+ 7
439	[o Hydrae]	4.88	B 8	11 37 34.519	+2.9808	− 30	−34 27 2.40	−19.944	+ 3
1300	[61 Ursae maj.]	5.46	G 5	11 38 15.795	+3.1589	− 12	+34 30 3.86	−20.343	−390
440	3 Draconis	5.48	K 0	11 39 32.023	+3.3459	− 83	+67 2 18.02	−19.928	+ 34
1301	[ζ Crateris]	4.90	G 5	11 42 4.387	+3.0416	+ 24	−18 3 21.55	−20.018	− 37
442	[λ Muscae]	3.80	A 5	11 43 5.567	+2.8330	−148	−66 26 5.32	−19.958	+ 30
1302	[ν Virginis]	4.20	M 0	11 43 8.096	+3.0837	− 12	+ 6 49 35.26	−20.176	−187

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		m		h m s	s		° ' "	"	
441	χ Ursae maj.	3.85	K 0	11 43 15.524	+3.1678	— 138	+48 4 24.04	—19.966	+ 23
443	[65 G. Centauri]	4.22	G 0	11 43 56.219	+2.9014	— 42	—60 53 0.87	—20.013	— 19
1303	[Grb 1826 UMaj]	6.64	F 0	11 44 16.956	+3.2378	— 52	+61 41 48.82	—20.040	— 44
1304	[93 Leonis]	4.54	F 8	11 45 15.176	+3.0945	— 108	+20 30 48.59	—20.012	— 11
1305	[298 G. Hydrae]	5.45	M 3	11 46 4.214	+3.0309	— 20	—26 27 17.73	—20.017	— 11
444	β Leonis	2.23	A 2	11 46 21.428	+3.0600	— 343	+14 52 6.13	—20.126	— 119
445	β Virginis	3.80	F 8	11 47 56.010	+3.1252	+ 494	+ 2 3 48.45	—20.290	— 275
1306	[12 G. Virginis]	5.81	K 0	11 48 19.553	+3.0675	+ 3	— 5 2 18.82	—20.022	— 5
446	[B Centauri]	4.71	K 0	11 48 29.153	+2.9978	— 88	—44 52 43.27	—20.047	— 29
1307	[Grb 1830 UMaj]	6.46	G 5	11 49 55.781	+3.4576	+3385	+38 5 56.70	—25.828	—5805
447	γ Ursae maj.	2.54	A 0	11 51 3.092	+3.1553	+ 104	+53 59 22.04	—20.022	+ 6
1308	[95 Leonis]	5.49	A 2	11 52 57.032	+3.0856	+ 7	+15 56 30.16	—20.037	— 3
1309	[η Crateris]	5.16	A 0	11 53 18.658	+3.0577	— 37	—16 51 20.52	—20.046	— 11
1310	[Pi 11^{h}202 UMaj]	6.30	F 0	11 55 24.028	+3.0818	— 84	+32 34 11.20	—20.107	— 69
1311	[π Virginis]	4.57	A 3	11 58 9.390	+3.0744	— 2	+ 6 54 35.41	—20.075	— 33
449	[88 G. Centauri]	5.28	F 0	12 0 54.377	+3.1074	+ 292	—42 8 14.14	—20.162	— 120
450	o Virginis	4.24	G 5	12 2 30.540	+3.0560	— 149	+ 9 1 38.43	—19.996	+ 45
451	[Grb 1852 Caml]	5.96	K 0	12 2 35.096	+3.0500	+ 438	+77 12 7.10	—20.141	— 100
1312	[311 G. Hydrae]	6.26	B 9	12 3 12.753	+3.0824	— 42	—35 23 55.37	—20.036	+ 5
452	δ Centauri	2.88	B 3p	12 5 36.114	+3.1097	— 33	—50 25 38.05	—20.047	— 10
453	ε Corvi	3.21	K 0	12 7 23.666	+3.0861	— 49	—22 19 30.12	—20.023	+ 10
1313	[3 Comae]	6.34	A 0	12 7 49.568	+3.0577	— 14	+17 6 14.57	—20.037	— 6
454	Br 1634 Caml	5.12	A 5	12 9 44.375	+2.8098	+ 22	+77 54 38.27	—20.006	+ 19
1314	[Br 1636 U Maj]	6.26	K 0	12 12 6.169	+2.9744	— 25	+53 43 45.92	—20.034	— 19
455	[δ Crucis]	3.08	B 3	12 12 19.059	+3.1861	— 44	—58 27 14.51	—20.020	— 6
456	δ Ursae maj.	3.44	A 2	12 12 48.665	+2.9692	+ 125	+57 19 36.94	—20.008	+ 3
457	[γ Corvi]	2.78	B 8	12 13 4.590	+3.0858	— 111	—17 14 51.98	—19.994	+ 16
458	[2 Canum venat.]	5.92	K 5	12 13 28.451	+3.0064	+ 14	+40 57 18.15	—20.047	— 39
459	β Chamaeleontis	4.38	B 5	12 15 11.623	+3.5170	— 133	—79 1 4.77	—19.982	+ 16
1315	[14 Virginis]	7.03	K 0	12 16 36.345	+3.0879	0	— 8 37 12.49	—20.017	— 27
460	η Virginis	4.00	A 0	12 17 11.553	+3.0696	— 42	— 0 22 20.64	—20.008	— 22
1316	[3 Canum venat.]	5.56	K 2	12 17 12.431	+2.9556	— 10	+49 16 41.35	—19.983	+ 3
1317	[16 Virginis]	5.10	K 0	12 17 39.393	+3.0471	— 197	+ 3 36 27.18	—20.053	— 70
1318	[12 Comae]	4.78	F 5	12 19 50.569	+3.0156	— 9	+26 8 24.30	—19.981	— 13
1319	[322 G. Hydrae]	6.34	K 0	12 22 31.566	+3.1418	+ 3	—27 27 20.37	—19.966	— 20
461	[6 Canum venat.]	5.22	K 0	12 23 14.483	+2.9554	— 70	+39 18 44.66	—19.979	— 40
462	α Crucis *m*	1.58 2.09	B 1 B 1	12 23 38.343	+3.3375	— 39	—62 48 20.59	—19.948	— 12
463	[323 G. Hydrae]	5.68	A 0	12 24 3.695	+3.1621	— 6	—32 32 10.93	—19.962	— 30
464	[σ Centauri]	4.16	B 3	12 25 9.797	+3.2451	— 25	—49 56 14.23	—19.942	— 21
1320	[122 G. Centauri]	5.60	B 8	12 25 32.873	+3.1901	— 25	—38 44 52.39	—19.938	— 20

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
466	20 Comae	5.72	A 2	12 27 3.532	+3.0139	+ 17	+21 11 21.84	−19.937	− 34
465	δ Corvi	3.11	A 0	12 27 7.071	+3.1046	−146	−16 13 14.04	−20.045	−143
467	[74 Ursae maj.]	5.44	A 5	12 27 29.228	+2.8015	− 87	+58 41 49.72	−19.810	+ 88
468	[γ Crucis]	1.61	M 3	12 28 12.749	+3.3283	+ 39	−56 48 59.63	−20.154	−264
469	[γ Muscae]	4.04	B 5	12 29 16.477	+3.5835	− 92	−71 50 25.36	−19.885	− 6
1321	[35 G. Corvi]	5.76	G 5	12 30 49.087	+3.1114	− 17	−12 32 19.51	−19.811	+ 50
1322	[Pi 12ʰ 122 C Ven]	5.43	K 0	12 31 2.402	+2.9547	+ 12	+33 32 24.50	−19.898	− 39
470	β Canum venat.	4.32	G 0	12 31 13.746	+2.8487	−631	+41 38 42.82	−19.569	+287
472	ϰ Draconis	3.88	B 5 p	12 31 13.862	+2.5604	−117	+70 4 48.50	−19.849	+ 8
471	β Corvi	2.84	G 5	12 31 35.893	+3.1521	+ 4	−23 6 13.88	−19.909	− 57
1323	[23 Comae]	4.78	A 0	12 32 12.657	+2.9889	− 51	+22 55 14.86	−19.830	+ 15
473	24 Comae *sq*	5.18	K 0	12 32 28.283	+3.0090	− 4	+18 40 6.89	−19.821	+ 20
474	α Muscae	2.94	B 3	12 33 59.992	+3.5778	− 65	−68 50 37.17	−19.834	− 13
1324	[25 Virginis]	5.90	A 0	12 34 3.384	+3.0903	− 22	− 5 32 23.99	−19.842	− 20
475	[χ Virginis]	4.78	K 0	12 36 30.459	+3.0968	− 52	− 7 42 15.13	−19.821	− 33
1325	133 G. Centauri	5.84	K 0	12 38 27.613	+3.2957	− 77	−45 51 20.64	−19.707	+ 54
1326	[ρ Virginis]	4.95	A 0	12 39 12.072	+3.0366	+ 57	+10 31 38.66	−19.844	− 94
478	76 Ursae maj.	5.92	A 0	12 39 15.376	+2.6205	− 56	+63 0 13.34	−19.771	− 22
479	[330 G. Hydrae]	5.73	K 2	12 41 10.624	+3.1977	− 27	−28 1 59.91	−19.758	− 38
1327	[Y Canum ven.]	4.8-6.0	N 3	12 42 38.640	+2.8196	+ 1	+45 43 46.84	−19.687	+ 10
1328	[32 d² Virginis]	5.24	A 5	12 42 56.331	+3.0311	− 73	+ 7 57 46.27	−19.690	+ 2
481	β Crucis	1.50	B 1	12 44 36.526	+3.5059	− 47	−59 23 57.29	−19.677	− 14
1329	[332 G. Hydrae]	6.29	B 9	12 45 4.264	+3.1895	− 31	−24 33 47.48	−19.622	+ 34
1330	[35 Virginis]	6.66	M 0	12 45 9.388	+3.0551	− 5	+ 3 51 42.45	−19.660	− 5
1331	[143 G. Centauri]	5.01	A 0	12 47 48.171	+3.2555	− 25	−33 42 38.34	−19.631	− 23
1332	[31 Comae]	5.07	G 0	12 49 7.091	+2.9220	− 12	+27 49 43.41	−19.599	− 16
1333	[32 Comae]	6.53	K 5	12 49 34.078	+2.9830	− 6	+17 21 42.40	−19.592	− 17
482	150 G. Centauri	4.34	A 5	12 50 29.548	+3.3233	+ 58	−39 53 27.42	−19.583	− 25
1334	[52 G. Corvi]	6.84	A 0	12 51 12.211	+3.1654	− 26	−17 45 1.16	−19.546	− 2
1335	[ψ Virginis]	4.91	M 3	12 51 35.592	+3.1202	− 17	− 9 15 5.31	−19.557	− 20
483	ε Ursae maj.	1.68	A 0p	12 51 42.178	+2.6393	+134	+56 14 49.90	−19.544	− 9
484	δ Virginis	3.66	M 0	12 52 55.919	+3.0221	−314	+ 3 41 6.29	−19.567	− 57
486	8 Draconis	5.27	F 0	12 53 22.279	+2.3879	− 15	+65 43 32.16	−19.537	− 36
485	α Canum ven. *sq*	2.90	A 0p	12 53 33.063	+2.8061	−201	+38 36 15.07	−19.447	+ 50
1336	[44 Virginis]	5.88	A 0	12 56 55.531	+3.0909	− 26	− 3 31 35.09	−19.422	+ 5
487	[δ Muscae]	3.63	K 2	12 58 35.638	+4.1273	+571	−71 15 48.84	−19.421	− 31
488	ε Virginis	2.95	K 0	12 59 32.254	+2.9863	−186	+11 14 37.00	−19.350	+ 19
1337	[14 Canum ven.]	5.11	B 9	13 3 15.865	+2.8051	− 26	+36 4 55.34	−19.267	+ 16
1338	[Grb 1956 C Ven]	5.72	K 0	13 3 29.352	+2.6988	− 18	+45 33 5.60	−19.253	+ 25
1339	[39 Comae]	6.04	F 5	13 3 46.216	+2.9235	− 55	+21 26 14.64	−19.317	− 46

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ′ ″	″	
489	[ξ² Centauri]	4.40	B 3	13 3 48.225	+3.5021	— 32	—49 37 21.95	—19.281	— 11
1340	[177 G. Centauri]	5.96	B 9	13 4 28.496	+3.5648	— 41	—53 10 35.46	—19.287	— 32
490	ϑ Virginis	4.46	A 0	13 7 12.153	+3.1065	— 23	— 5 15 23.38	—19.222	— 35
491	[17 Canum ven.]	6.05	F 0	13 7 37.292	+2.7546	— 64	+38 46 48.46	—19.138	+ 38
1341	[342 G. Hydrae]	6.48	A 3	13 8 45.925	+3.2642	— 41	—26 16 13.61	—19.153	— 6
492	β Comae	4.32	G 0	13 9 24.051	+2.7996	—604	+28 8 46.65	—18.253	+ 877
493	[η Muscae]	4.95	B 8	13 11 37.782	+4.0658	— 57	—67 36 51.50	—19.087	— 16
1342	[195 G. Centauri]	5.36	K 0	13 13 56.078	+3.3332	+ 30	—31 13 34.20	—19.060	— 52
1343	[196 G. Centauri]	5.87	A 3p	13 14 8.838	+3.4783	— 10	—43 42 0.43	—19.015	— 13
1344	[σ Virginis]	5.01	M 0	13 14 55.596	+3.0296	— 5	+ 5 44 54.96	—18.968	+ 13
494	[20 Canum ven.]	4.66	F 0	13 15 10.089	+2.6900	—110	+40 51 4.16	—18.956	+ 18
1345	[61 Virginis]	4.80	G 5	13 15 37.630	+3.1387	—755	—18 1 1.38	—20.034	—1073
495	γ Hydrae	3.33	G 5	13 16 2.103	+3.2624	+ 53	—22 53 32.94	—18.998	— 49
496	ι Centauri	2.91	A 2	13 17 36.558	+3.3729	—281	—36 25 59.76	—18.991	— 87
1346	[23 Canum ven.]	5.69	K 0	13 17 56.563	+2.6881	— 53	+40 25 41.45	—18.904	— 10
1347	[J Centauri]	4.62	B 5	13 19 11.330	+3.8766	— 39	—60 42 39.62	—18.867	— 10
497	ζ Ursae maj. *pr*	2.40	A 2p	13 21 47.671	+2.4154	+140	+55 12 5.94	—18.804	— 25
498	α Virginis	1.21	B 2	13 22 23.827	+3.1610	— 26	—10 53 7.01	—18.794	— 33
1348	[68 Virginis]	5.59	K 2	13 23 54.894	+3.1695	— 93	—12 25 56.95	—18.738	— 24
499	Grb 2001 UMin	6.07	K 5	13 24 46.770	+1.5293	+ 39	+72 39 58.85	—18.700	— 13
1349	[70 Virginis]	5.16	G 0	13 25 50.199	+2.9344	—164	+14 3 40.52	—19.232	— 580
1350	[+31°2493 CVen]	7.12	K 2	13 25 51.729	+2.7746	+ 2	+31 25 23.68	—18.654	— 2
500	69 H. Ursae maj.	5.41	A 0	13 26 30.508	+2.2016	—110	+60 13 8.54	—18.598	+ 33
1351	[78 Virginis]	4.93	A 2p	13 31 26.640	+3.0404	+ 28	+ 3 55 49.80	—18.496	— 29
501	ζ Virginis	3.44	A 2	13 31 59.389	+3.0572	—190	— 0 19 32.32	—18.413	+ 36
502	17 H. Can. ven.	4.96	F 0	13 32 25.880	+2.6783	+ 68	+37 27 12.08	—18.445	— 12
1352	[80 Virginis]	5.75	K 0	13 32 45.647	+3.1214	+ 10	— 5 7 37.21	—18.349	+ 73
1353	[Grb 2017 C Ven]	6.63	A 5	13 32 58.797	+2.5534	— 21	+44 28 2.54	—18.403	+ 12
503	[49 G. Chamael.]	6.44	A 0	13 34 36.590	+5.1311	— 35	—75 24 52.18	—18.371	— 15
505	[Grb 2029 UMin]	5.67	K 0	13 35 54.320	+1.4405	— 89	+71 30 41.78	—18.318	— 6
504	ε Centauri	2.56	B 1	13 36 30.920	+3.8015	— 22	—53 11 51.23	—18.304	— 14
1354	[355 G. Hydrae]	6.42	A 0	13 38 34.997	+3.3113	— 7	—23 10 56.47	—18.214	+ 2
1355	[82 Virginis]	5.16	M 0	13 38 49.596	+3.1494	— 67	— 8 26 10.68	—18.173	+ 35
1356	[253 G. Centauri]	6.30	B 2	13 39 27.152	+3.9200	— 24	—56 30 3.88	—18.194	— 10
1357	[83 Virginis]	5.71	G 0	13 41 37.943	+3.2376	+ 9	—15 54 47.84	—18.115	— 12
506	[1 Centauri]	4.36	F 5	13 42 40.090	+3.4097	—363	—32 46 35.19	—18.213	— 150
1358	[3 Bootis]	5.91	F 5	13 44 15.642	+2.7856	— 16	+25 58 2.75	—18.068	— 64
507	τ Bootis	4.51	F 5	13 44 44.555	+2.8510	—338	+17 43 12.69	—17.951	+ 34
509	η Ursae maj.	1.91	B 3	13 45 27.219	+2.3640	—126	+49 34 38.05	—17.972	— 14
508	[μ Centauri]	3.32	B 2p	13 46 24.808	+3.6143	— 19	—42 12 37.63	—17.944	— 24

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ′ ″	″	
510	89 Virginis	5.11	K 0	13 46 59.188	+3.2602	− 70	−17 52 15.46	−17.940	− 43
1359	[+9° 2814 Bootis]	6.54	A 0	13 47 6.131	+2.9804	− 10	+ 8 40 15.86	−17.892	0
511	[10 Draconis]	4.77	M 0	13 49 52.965	+1.7519	− 4	+64 59 4.35	−17.791	− 9
513	η Bootis	2.80	G 0	13 52 9.606	+2.8567	− 44	+18 39 45.47	−18.051	− 362
512	ζ Centauri	3.06	B 2 p	13 52 13.278	+3.7426	− 55	−47 1 41.54	−17.728	− 42
514	[294 G. Centauri]	4.68	K 0	13 53 47.369	+4.3415	− 49	−63 25 40.14	−17.652	− 31
1360	[+32° 2411 C Ven]	6.29	F 2	13 53 49.339	+2.6603	−106	+32 17 26.08	−17.575	+ 45
515	[47 Hydrae]	5.17	B 8	13 55 32.343	+3.3672	− 32	−24 42 51.38	−17.576	− 28
1361	[48 Hydrae]	5.80	F 0	13 57 1.648	+3.3599	−145	−24 45 9.28	−17.584	− 99
1362	[204 G. Virginis]	6.30	F 5	13 57 4.286	+3.1088	− 20	− 3 17 32.86	−17.551	− 68
517	11 Bootis	6.12	A 3	13 58 46.246	+2.7203	− 63	+27 38 30.53	−17.398	+ 12
516	τ Virginis	4.34	A 2	13 58 56.783	+3.0535	+ 11	+ 1 48 0.77	−17.426	− 24
518	β Centauri	0.86	B 1	14 0 3.814	+4.2344	− 25	−60 7 5.78	−17.373	− 20
1363	[ϑ Apodis]	5.5—6.7	M 3	14 0 5.764	+5.8446	−241	−76 32 32.54	−17.386	− 35
1364	[307 G. Centauri]	6.44	A 0 p	14 0 13.050	+3.6546	− 40	−41 10 7.61	−17.378	− 32
1365	[210 G. Virginis]	6.36	K 0	14 1 34.518	+3.2482	− 26	−14 43 4.25	−17.311	− 24
521	α Draconis	3.64	A 0 p	14 2 57.088	+1.6242	− 89	+64 37 43.13	−17.213	+ 13
519	[π Hydrae]	3.48	K 0	14 3 20.795	+3.4171	+ 34	−26 25 40.48	−17.352	− 144
1366	[94 Virginis]	6.56	A 0	14 3 29.134	+3.1776	+ 1	− 8 38 22.34	−17.184	+ 18
520	ϑ Centauri	2.26	K 0	14 3 33.282	+3.5310	−427	−36 6 36.42	−17.721	− 522
1367	[+39° 2720 C Ven]	7.90	K 0	14 4 13.156	+2.5225	+ 9	+38 40 10.47	−17.176	− 7
1368	[9 H. Bootis]	5.44	M 3	14 5 48.640	+2.3981	+ 7	+44 6 21.22	−17.126	− 29
522	12 d Bootis	4.82	F 5	14 7 58.858	+2.7361	− 18	+25 20 31.01	−17.061	− 64
524	4 Ursae min.	5.00	K 0	14 9 1.245	−0.2342	−108	+77 47 47.43	−16.922	+ 28
523	ϰ Virginis	4.31	K 0	14 10 3.850	+3.2007	+ 5	−10 1 40.61	−16.764	+ 135
525	ι Virginis	4.16	F 5	14 13 13.899	+3.1465	− 7	− 5 44 54.44	−17.177	− 428
526	α Bootis	0.24	K 0	14 13 14.552	+2.7365	−775	+19 27 27.23	−18.746	−1998
528	[ι Bootis]	4.87	A 5	14 14 17.306	+2.1242	−163	+51 36 39.87	−16.609	+ 89
527	λ Bootis	4.26	A 0	14 14 22.137	+2.2806	−182	+46 19 51.55	−16.536	+ 158
1369	[236 G. Virginis]	5.74	A 0 p	14 15 42.051	+3.3178	− 46	−18 28 17.53	−16.672	− 42
1370	[A Bootis]	4.83	K 0	14 15 45.340	+2.5357	− 3	+35 45 11.80	−16.615	+ 12
1371	[λ Virginis]	4.60	A 2	14 16 14.228	+3.2466	− 12	−13 7 41.23	−16.579	+ 24
529	[υ Centauri]	4.41	B 5	14 16 36.325	+4.1895	− 22	−56 8 36.48	−16.599	− 14
1372	[18 Bootis]	5.31	F 0	14 16 42.265	+2.9036	+ 71	+13 14 52.49	−16.615	− 34
1373	[ψ Centauri]	4.17	A 0	14 17 19.433	+3.6488	− 58	−37 38 33.04	−16.560	− 10
1374	[2 Librae]	6.30	K 0	14 20 34.225	+3.2286	− 8	−11 28 22.68	−16.451	− 63
530	[10 G. Circini]	5.71	A 2 p	14 20 40.632	+4.9724	− 23	−67 57 20.57	−16.395	− 14
1375	[244 G. Virginis]	5.08	A 3	14 21 32.930	+2.9856	− 54	+ 6 3 34.73	−16.334	+ 5
1376	[3 G. Librae]	5.39	K 0	14 21 46.795	+3.4236	− 40	−24 34 0.72	−16.354	− 27
1377	[τ^1 Lupi]	4.65	B 3	14 22 43.395	+3.8509	− 14	−44 58 57.89	−16.293	− 15

Mittlere Sternörter 1947.0

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.″0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
531	ϑ Bootis	4.06	F 8	14 23 23.491	+2.0422	− 260	+52 5 42.21	−16.646	− 401
1378	[22 Bootis]	5.36	A 5	14 23 59.354	+2.7905	− 52	+19 27 51.31	−16.193	+ 21
532	[52 Hydrae]	5.00	B 8	14 25 3.726	+3.5142	− 18	−29 15 16.21	−16.184	− 26
533	[φ Virginis]	4.99	K 0	14 25 28.094	+3.0916	− 92	− 1 59 28.81	−16.142	− 4
1379	[5 Ursae min.]	4.37	K 2	14 27 36.557	−0.1266	+ 12	+75 55 53.81	−16.007	+ 21
534	ρ Bootis	3.78	K 0	14 29 32.691	+2.5854	− 79	+30 36 11.59	−15.807	+ 117
535	γ Bootis	3.00	F 0	14 29 56.595	+2.4156	− 98	+38 32 21.38	−15.754	+ 149
536	[Grb 2125 Draco]	6.18	F 0	14 30 16.293	+1.6285	− 72	+60 27 30.76	−15.872	+ 14
537	η Centauri	2.65	B 3 p +A 2 p	14 32 7.878	+3.8098	− 30	−41 55 34.24	−15.820	− 35
1380	[σ Bootis]	4.48	F 0	14 32 22.316	+2.6124	+ 146	+29 58 28.09	−15.645	+ 128
1381	[10 G. Librae]	6.24	F 8	14 34 10.346	+3.1924	− 591	−12 4 52.07	−15.314	+ 360
538	*α Centauri	0.33 1.70	G 0 K 5	14 35 59.072	+4.0782	−4887	−60 37 4.67	−14.866	+ 709
540	[33 Bootis]	5.39	A 0	14 36 51.825	+2.2324	− 68	+44 37 57.13	−15.547	− 20
539	[α Circini]	3.42	F 0	14 38 11.813	+4.8480	− 295	−64 44 45.27	−15.689	− 237
541	[α Lupi]	2.89	B 2	14 38 23.562	+3.9904	− 16	−47 9 42.86	−15.460	− 19
1382	32 Bootis	5.63	G 5	14 39 10.621	+2.8824	− 108	+11 53 16.55	−15.516	− 118
545	μ Virginis	3.95	F 5	14 40 15.798	+3.1621	+ 71	− 5 25 44.00	−15.659	− 322
544	[371 G. Centauri]	4.13	K 0	14 40 24.431	+3.6696	− 52	−34 56 47.95	−15.515	− 186
1383	[34 Bootis]	4.93	M 0	14 41 5.542	+2.6368	− 10	+26 45 8.01	−15.310	− 19
542	α Apodis	3.81	K 5	14 41 10.617	+7.4476	− 8	−78 49 19.84	−15.304	− 21
1384	[+33° 2489 Boot]	6.47	M 0	14 43 0.601	+2.5096	+ 30	+33 0 42.66	−15.264	− 82
546	[30 G. Lupi]	5.20	K 0	14 43 17.956	+4.1956	− 24	−52 9 37.88	−15.247	− 83
547	109 Virginis	3.76	A 0	14 43 33.991	+3.0335	− 74	+ 2 6 54.44	−15.181	− 31
1385	[56 Hydrae]	5.39	G 5	14 44 38.776	+3.5029	+ 32	−25 51 59.00	−15.089	− 1
1386	[Grb 2152 Boot]	5.98	F 0	14 47 1.803	+2.3553	− 220	+38 1 43.50	−14.842	+ 108
1387	[α¹ Librae]	5.33	F 5	14 47 45.003	+3.3187	− 69	−15 46 41.20	−14.983	− 75
548	α² Librae	2.90	A 3	14 47 56.490	+3.3193	− 73	−15 49 21.74	−14.968	− 71
549	Grb 2164 Draco	5.67	K 2	14 50 5.457	+1.5228	− 167	+59 30 31.51	−14.637	+ 134
550	β Ursae min.	2.24	K 5	14 50 50.169	−0.1747	− 84	+74 22 19.69	−14.719	+ 9
1388	[+6° 2957 Virgo]	6.69	K 0	14 51 2.275	+2.9687	− 19	+ 6 27 26.36	−14.706	+ 8
1389	[381 G. Centauri]	5.34	A 0	14 52 29.060	+3.6832	+ 21	−33 38 30.56	−14.633	− 5
551	Pi 14^{h}221 Boot	5.77	A 0	14 53 43.002	+2.8319	− 10	+14 39 33.93	−14.558	− 4
1390	[ξ² Librae]	5.63	K 0	14 53 53.264	+3.2556	+ 4	−11 11 49.10	−14.539	+ 4
1391	[33 G. Librae]	6.00	K 5	14 54 21.909	+3.5045	+ 743	−21 10 39.67	−16.254	−1739
1392	[Pi 14^{h}227 Boot]	6.24	A 0	14 54 40.248	+2.7038	− 10	+21 46 5.58	−14.522	− 25
1393	[Br 1908 Virgo]	5.71	K 0	14 54 49.997	+3.0767	+ 42	+ 0 2 41.60	−14.514	− 27
552	β Lupi	2.81	B 2 p	14 55 2.974	+3.9292	− 37	−42 55 18.36	−14.514	− 41
553	[κ Centauri]	3.35	B 3	14 55 42.202	+3.9034	− 15	−41 53 34.32	−14.461	− 28
554	[2 H. Ursae min.]	4.86	M 3	14 56 43.936	+0.9538	− 138	+66 8 35.17	−14.347	+ 26
1394	[δ Librae]	4.8—5.9	A 0	14 58 8.190	+3.2057	− 44	− 8 18 35.32	−14.294	− 8

Nr. 538. Ort des Schwerpunktes. Die Reduktion auf den Ort des helleren Sternes beträgt nach den Elementen von Finsen, Union Observ. Circular 68, 1926:

$$1947.0 \quad \Delta\alpha = -0.^s144 \quad \Delta\delta = -4.''34$$
$$1948.0 \quad \quad = -0.174 \quad \quad = -4.48$$

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
555	β Bootis	3.63	G 5	14 59 56.892	+2.2597	− 40	+40 35 55.36	−14.208	− 33
556	σ Librae	3.41	M 3	15 0 57.708	+3.5120	− 53	−25 4 29.93	−14.158	− 48
557	ψ Bootis	4.67	K 0	15 2 10.382	+2.5708	−133	+27 9 11.84	−14.045	− 9
1395	[47 Bootis]	5.59	A 0	15 3 40.417	+1.9871	− 68	+48 21 17.97	−13.914	+ 29
1397	[+55° 1730 Boot]	5.21	G 5	15 4 45.718	+1.7134	+ 51	+54 45 34.63	−13.865	+ 9
1396	[45 Bootis]	5.03	F 0	15 4 58.297	+2.6352	+135	+25 4 28.20	−14.034	−174
1398	[κ¹ Lupi]	4.14	B 9	15 8 14.240	+4.1705	−100	−48 32 16.10	−13.703	− 51
558	ζ Lupi	3.50	K 0	15 8 27.802	+4.3100	−121	−51 53 56.52	−13.704	− 67
559	[ι Librae]	4.66	A 0 p	15 9 11.680	+3.4202	− 27	−19 35 32.81	−13.633	− 42
1399	[ι Lupi]	4.95	F 0	15 11 22.085	+3.6759	− 2	−31 19 21.51	−13.453	− 2
562	[3 Serpentis]	5.44	K 0	15 12 33.099	+2.9824	− 14	+ 5 8 5.76	−13.372	+ 1
561	[β Circini]	4.16	A 3	15 13 20.774	+4.6967	−126	−58 36 17.99	−13.459	−138
563	δ Bootis	3.54	K 0	15 13 21.863	+2.4188	+ 66	+33 30 41.41	−13.439	−118
560	γ Triang. austr.	3.06	A 0	15 13 55.812	+5.6014	−105	−68 29 8.67	−13.309	− 27
565	ι H. Ursae min.	5.23	G 0	15 14 1.168	+0.6886	+372	+67 32 51.82	−13.670	−391
564	β Librae	2.74	B 8	15 14 9.044	+3.2287	− 66	− 9 11 19.07	−13.292	− 23
1400	[Pi 15h 36 Serp]	5.66	G 5	15 16 1.820	+2.6900	− 9	+20 45 55.56	−13.169	− 23
1401	[+10° 2823 Serp]	6.71	F 8	15 16 9.230	+2.8777	− 63	+10 37 11.61	−13.136	+ 1
1402	[δ Lupi]	3.43	B 2	15 17 53.027	+3.9381	− 13	−40 27 25.48	−13.049	− 27
566	φ¹ Lupi	3.59	K 5	15 18 26.062	+3.8068	− 79	−36 4 13.93	−13.073	− 87
1403	[φ² Lupi]	4.69	B 3	15 19 45.672	+3.8334	− 14	−36 40 11.54	−12.922	− 25
1404	[73 G. Librae]	6.78	K 0	15 19 46.722	+3.5857	+ 24	−26 30 2.35	−12.904	− 8
1405	[30 Librae]	6.74	K 2	15 20 4.116	+3.3464	− 2	−14 56 46.55	−12.866	+ 11
569	γ Ursae min.	3.14	A 2	15 20 47.636	−0.0949	− 48	+72 1 21.45	−12.811	+ 19
1406	[8 Serpentis]	6.10	F 0	15 20 59.564	+3.0932	+ 49	− 0 50 4.52	−12.846	− 31
568	μ Bootis *pr*	4.47	F 0	15 22 29.201	+2.2665	−124	+37 33 43.37	−12.631	+ 83
570	[τ¹ Serpentis]	5.46	M 0	15 23 19.764	+2.7826	− 12	+15 36 47.46	−12.671	− 14
571	ι Draconis	3.47	K 0	15 23 44.747	+1.3347	− 16	+59 9 3.99	−12.617	+ 13
1407	[32 Librae]	5.92	K 0	15 25 15.750	+3.3839	+ 10.	−16 31 59.10	−12.562	− 36
572	β Coronae bor.	3.72	F 0 p	15 25 38.527	+2.4737	−138	+29 17 14.44	−12.418	+ 82
567	[κ¹ Apodis]	5.65	B 5 p	15 25 41.487	+6.5375	+ 15	−73 12 30.44	−12.527	− 34
1408	[+9° 3055 Serp]	6.46	F 2	15 28 20.895	+2.9132	+ 24	+ 8 45 32.98	−12.316	− 2
573	ν¹ Bootis	5.15	K 5	15 29 1.421	+2.1550	+ 7	+41 0 46.23	−12.275	− 7
576	[ϑ Coronae bor.]	4.17	B 5	15 30 47.437	+2.4191	− 19	+31 32 12.78	−12.163	− 18
1409	[37 Librae]	4.83	K 0	15 31 16.619	+3.2792	+204	− 9 53 3.34	−12.352	−241
574	[ε Triang. austr.]	4.11	K 0	15 31 50.615	+5.4898	+ 45	−66 8 27.91	−12.138	− 69
578	α Coronae bor.	2.31	A 0	15 32 26.532	+2.5402	+ 90	+26 53 31.10	−12.121	− 91
577	γ Librae	4.02	K 0	15 32 33.403	+3.3564	+ 43	−14 36 51.22	−12.020	+ 1
1410	115 G. Lupi	5.47	K 5	15 32 33.651	+4.1090	− 48	−44 13 14.38	−12.064	− 44
579	[υ Librae]	3.78	K 2	15 33 48.039	+3.6428	− 4	−27 57 39.63	−11.935	− 2

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Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
1411	[2 G. Normae]	5.48	A 0	15 34 52.369	+4.4582	− 39	−52 11 58.71	−11.898	− 40
580	[φ Bootis]	5.41	G 5	15 35 55.282	+2.1546	+ 52	+40 31 29.99	−11.729	+ 56
1412	[Pi 15h153 Boot]	5.78	F 0	15 36 34.221	+1.9212	+ 81	+46 58 17.50	−11.866	− 126
1413	[κ Librae]	4.96	K 5	15 38 53.261	+3.4571	− 27	−19 30 30.83	−11.684	− 111
582	α Serpentis	2.75	K 0	15 41 39.292	+2.9553	+ 92	+ 6 35 27.92	−11.330	+ 45
583	β Serpentis	3.74	A 2	15 43 44.369	+2.7692	+ 48	+15 35 11.19	−11.273	− 48
587	[12 H. Draconis]	5.13	A 2	15 45 51.079	+0.9144	+ 48	+62 45 46.36	−11.133	− 61
590	ζ Ursae min.	4.34	A 2	15 45 54.260	−2.1426	+ 52	+77 57 30.31	−11.074	− 4
584	κ Serpentis	4.28	K 5	15 46 21.123	+2.7008	− 34	+18 18 14.61	−11.124	− 89
585	μ Serpentis	3.63	A 0	15 46 51.061	+3.1313	− 58	− 3 16 9.95	−11.027	− 28
586	[χ Lupi]	4.11	B 9	15 47 35.013	+3.8124	− 8	−33 28 2.43	−10.976	− 32
588	ε Serpentis	3.75	A 2	15 48 10.277	+2.9908	+ 85	+ 4 38 9.42	−10.839	+ 63
1414	[κ Coronae bor.]	4.77	K 0	15 49 13.986	+2.2606	− 10	+35 49 14.58	−11.177	− 353
1415	[λ Librae]	5.06	B 3	15 50 15.156	+3.4833	− 7	−20 0 36.51	−10.777	− 28
589	β Triang. austr.	3.04	F 0	15 50 27.099	+5.2858	−282	−63 16 9.11	−11.125	− 394
1416	[χ Herculis]	4.61	G 0	15 50 50.453	+2.0739	+393	+42 35 56.00	−10.078	+ 628
591	[γ Serpentis]	3.86	F 5	15 54 0.153	+2.7714	+213	+15 49 59.87	−11.757	−1286
1417	[48 Librae]	4.68	B 3p	15 55 13.022	+3.3600	− 10	−14 7 40.77	−10.401	− 22
593	ε Coronae bor.	4.22	K 0	15 55 23.470	+2.4838	− 61	+27 1 48.63	−10.431	− 64
592	[π Scorpii]	3.00	B 2	15 55 38.410	+3.6298	− 6	−25 57 46.97	−10.372	− 25
1418	[144 G. Lupi]	5.07	G 5	15 55 53.227	+4.0875	− 22	−41 35 38.16	−10.339	− 10
595	[Grb 2296 Draco]	4.96	A 5	15 56 31.708	+1.4229	−185	+54 53 55.66	−10.176	+ 106
594	δ Scorpii	2.54	B 0	15 57 11.681	+3.5480	− 5	−22 28 20.79	−10.258	− 27
1419	[49 Librae]	5.53	F 8	15 57 20.853	+3.3670	−441	−16 22 43.55	−10.617	− 397
1420	[50 Librae]	5.55	A 0	15 57 55.714	+3.2393	− 12	− 8 15 46.58	−10.194	− 18
598	ϑ Draconis	4.11	F 8	16 0 53.464	+1.1240	−413	+58 42 22.49	− 9.618	+ 335
597	β Scorpii *pr*	2.90	B 1	16 2 21.044	+3.4889	− 2	−19 39 42.99	− 9.862	− 22
596	[δ Normae]	4.84	A 3p	16 2 44.166	+4.2401	+ 4	−45 1 52.23	− 9.780	+ 31
599	[ϑ Lupi]	4.33	B 3	16 3 6.272	+3.9395	− 17	−36 39 35.16	− 9.818	− 36
1421	[κ Herculis *pr*]	5.34	G 5	16 5 40.859	+2.7079	− 25	+17 11 12.48	− 9.598	− 11
1422	[+6° 3169 Serp]	6.02	G 5	16 6 34.435	+2.9544	+157	+ 6 31 42.79	−10.241	− 723
1423	[τ Coronae bor.]	4.94	K 0	16 7 1.885	+2.1934	− 48	+36 37 27.84	− 9.158	+ 325
601	[φ Herculis]	4.26	B 9p	16 7 5.836	+1.8901	− 28	+45 4 22.54	− 9.443	+ 35
600	[κ Normae]	5.09	K 0	16 9 17.141	+4.7309	− 11	−54 29 43.53	− 9.333	− 26
602	[δ Triang. austr.]	4.03	G 0	16 10 35.714	+5.4604	+ 10	−63 33 9.51	− 9.219	− 15
603	δ Ophiuchi	3.03	M 0	16 11 33.896	+3.1442	− 31	− 3 33 33.66	− 9.277	− 146
606	19 Ursae min.	5.51	B 8	16 12 18.310	−1.7102	− 15	+76 0 42.55	− 9.063	+ 13
1424	[δ¹ Apodis]	4.78	M 3	16 12 21.101	+8.9637	− 23	−78 33 58.39	− 9.103	− 37
1425	[17 Herculis]	6.59	K 0	16 14 0.987	+2.5582	− 12	+23 15 11.59	− 8.954	− 14
605	ε Ophiuchi	3.34	K 0	16 15 30.825	+3.1745	+ 55	− 4 33 53.21	− 8.783	+ 39

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ′ ″	″	
604	γ² Normae	4.14	K o	16 15 51.839	+4.4886	−170	−50 1 39.09	−8.847	− 54
1426	[55 G. Scorpii *sq*]	5.69	F 2	16 16 11.226	+3.7956	+ 66	−30 46 47.50	−8.748	+ 21
607	[σ Scorpii]	3.10	B 1	16 17 57.720	+3.6469	− 7	−25 28 2.34	−8.653	− 24
608	τ Herculis	3.91	B 5	16 18 8.715	+1.8035	− 12	+46 26 19.31	−8.579	+ 37
612	[η Ursae min.]	5.04	F o	16 19 1.538	−1.7531	−230	+75 52 41.53	−8.298	+250
1427	[σ Serpentis]	4.80	F o	16 19 23.120	+3.0383	−106	+ 1 9 7.77	−8.468	+ 50
609	γ Herculis	3.79	F o	16 19 34.794	+2.6466	− 35	+19 16 34.76	−8.458	+ 44
1428	[23 Herculis]	6.30	A 2	16 20 54.265	+2.3025	+ 9	+32 27 19.99	−8.408	− 10
1429	[21 Herculis]	5.72	A o	16 21 35.758	+2.9225	− 1	+ 7 4 9.73	−8.324	+ 18
610	[ζ Triang. austr.]	4.93	G o	16 22 44.526	+6.4540	+403	−69 58 4.13	−8.143	+105
613	[ω Herculis]	4.53	A o p	16 22 58.048	+2.7688	+ 27	+14 9 14.23	−8.292	− 59
614	[Grb 2343 Draco]	5.66	A 2	16 23 15.564	+1.3126	+ 13	+55 19 29.74	−8.193	+ 17
611	γ Apodis	3.90	K o	16 25 15.149	+9.2037	−408	−78 46 55.96	−8.113	− 68
616	α Scorpii	1.22	M o + A 3	16 26 9.208	+3.6792	− 2	−26 18 57.98	−8.000	− 23
1430	[22 G. Ophiuchi]	5.75	G o	16 26 46.916	+3.3912	+ 20	−14 26 9.70	−7.911	+ 16
1431	[N Scorpii]	4.33	B 3	16 27 54.784	+3.9208	− 6	−34 35 26.37	−7.851	− 15
618	β Herculis	2.81	K o	16 27 56.367	+2.5790	− 72	+21 36 13.73	−7.850	− 16
619	A Draconis	4.98	B 8 p	16 28 4.530	−0.1170	− 53	+68 52 58.24	−7.791	+ 34
1432	Pi 16h 140 Draco	5.85	A o	16 31 40.358	+0.8474	+ 18	+60 56 2.03	−7.547	− 13
621	σ Herculis	4.25	A o	16 32 23.527	+1.9342	− 12	+42 32 43.34	−7.432	+ 43
620	[τ Scorpii]	2.91	B o	16 32 34.698	+3.7352	− 5	−28 6 28.15	−7.483	− 25
623	[Grb 2373 U Min]	6.39	G 5	16 32 53.406	−2.5805	−327	+77 33 11.53	−7.164	+274
1433	[12 Ophiuchi]	5.87	K o	16 33 34.219	+3.1514	+302	− 2 12 46.99	−7.693	−315
622	ζ Ophiuchi	2.70	B o	16 34 14.226	+3.3037	+ 8	−10 27 40.89	−7.300	+ 24
1434	[42 Herculis]	5.14	M o	16 37 18.381	+1.6288	− 48	+49 1 52.50	−7.042	+ 32
624	[Br 2114 Ophi]	5.04	K o	16 38 30.224	+3.4700	− 16	−17 38 28.60	−6.978	− 3
626	η Herculis	3.61	K o	16 41 4.615	+2.0568	+ 29	+39 1 19.35	−6.848	− 83
625	α Triang. austr.	1.88	K 2	16 43 2.003	+6.3538	+ 51	−68 56 0.02	−6.633	− 33
627	Grb 2377 Draco	4.88	F o	16 44 17.238	+1.1379	+ 17	+56 52 33.68	−6.436	+ 65
1436	[19 Ophiuchi]	6.04	A 2	16 44 29.237	+3.0240	− 16	+ 2 9 31.05	−6.495	− 12
1435	[η Arae]	3.68	K 5	16 45 11.821	+5.1799	+ 43	−58 56 56.96	−6.452	− 30
1437	[−21° 4422 Ophi]	7.60	M o	16 46 25.106	+3.5786	− 8	−21 45 39.52	−6.343	− 20
628	ε Scorpii	2.36	K o	16 46 43.550	+3.8863	−490	−34 11 55.80	−6.549	−253
1438	[20 Ophiuchi]	4.73	F 5	16 46 53.907	+3.3191	+ 63	−10 41 27.37	−6.380	− 97
1439	[μ¹ Scorpii]	3.09	B 3 p	16 48 16.485	+4.0643	− 8	−37 57 30.26	−6.196	− 28
1440	[51 Herculis]	5.20	K o	16 49 33.331	+2.4871	+ 9	+24 44 39.57	−6.054	+ 9
629	49 Herculis	6.41	A o p	16 49 39.933	+2.7314	+ 10	+15 3 42.34	−6.050	+ 3
1441	[53 Herculis]	5.35	F o	16 50 57.315	+2.2746	− 78	+31 47 17.55	−5.965	− 20
1442	[ι Ophiuchi]	4.29	B 8	16 51 29.882	+2.8388	− 35	+10 15 4.19	−5.937	− 37
1443	[51 G. Apodis]	7.00	F 8	16 53 35.000	+8.2526	− 97	−76 8 11.26	−5.870	−149

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		m		h m s	s		° ′ ″	″	
1444	24 G. Arae	5.70	B 9	16 54 12.053	+ 4.6298	− 14	−50 33 34.53	−5.717	− 44
631	ζ Arae	3.06	K 5	16 54 13.513	+ 4.9648	− 20	−55 54 31.41	−5.702	− 33
633	κ Ophiuchi	*4.1-5.0*	K 0	16 55 9.443	+ 2.8397	−199	+ 9 27 21.61	−5.602	− 8
632	[ε¹ Arae]	4.15	K 2	16 55 21.083	+ 4.7815	0	−53 4 52.30	−5.558	+ 17
634	ε Herculis	3.92	A 0	16 58 15.579	+ 2.2952	− 40	+31 0 11.89	−5.304	+ 28
1445	[30 Ophiuchi]	5.00	K 0	16 58 15.718	+ 3.1632	− 34	− 4 8 41.11	−5.410	− 78
1446	[59 Herculis]	5.27	A 2	16 59 38.829	+ 2.2142	− 4	+33 38 37.62	−5.220	− 4
635	[60 Herculis]	4.91	A 3	17 2 55.097	+ 2.7821	+ 33	+12 48 43.97	−4.947	− 8
1448	[Pi 16ʰ 307 Herc]	6.36	A 0	17 3 27.946	+ 1.8270	0	+43 52 59.78	−4.893	− 1
1447	[80 G. Ophiuchi]	6.20	A 0	17 3 35.966	+ 3.7180	+ 2	−26 26 35.23	−4.899	− 19
1449	85 G. Ophiuchi	6.14	K 0	17 5 9.998	+ 3.4837	+ 2	−17 32 26.06	−4.782	− 35
636	[Grb 2415 Herc]	6.27	A 2	17 6 2.852	+ 1.9568	− 34	+40 35 3.50	−4.706	− 33
1450	[88 G. Ophiuchi]	5.58	F 5	17 6 51.977	+ 3.3170	+ 38	−10 27 20.38	−4.704	− 101
638	[η Scorpii]	3.44	F 2	17 8 21.116	+ 4.2972	+ 22	−43 10 16.73	−4.758	− 283
639	ζ Draconis	3.22	B 5	17 8 37.656	+ 0.1740	− 32	+65 46 47.32	−4.434	+ 21
1451	[97 G. Ophiuchi]	6.39	K 0	17 9 11.741	+ 2.8928	+ 18	+ 7 57 28.03	−4.393	+ 11
641	δ Herculis	3.16	A 2	17 12 51.161	+ 2.4642	− 18	+24 54 1.43	−4.250	− 158
643	π Herculis	3.36	K 5	17 13 11.947	+ 2.0894	− 25	+36 52 4.11	−4.059	+ 4
1452	[139 G. Scorpii]	5.55	F 5	17 13 36.555	+ 3.9029	− 76	−32 36 17.42	−4.079	− 53
1453	[U Ophiuchi]	5.7–6.4	B 8	17 13 50.216	+ 3.0438	− 5	+ 1 16 4.92	−4.024	− 16
642	[ι Apodis]	5.60	B 8	17 16 10.433	+ 6.6928	+ 12	−70 4 14.58	−3.819	− 14
1454	Pi 17ʰ 68 Herc	5.17	M 0	17 17 58.591	+ 2.6437	+ 2	+18 6 36.88	−3.707	− 54
1456	[72 Herculis]	5.36	G 0	17 18 40.422	+ 2.2444	+ 97	+32 32 4.97	−4.635	−1042
644	ϑ Ophiuchi	3.37	B 3	17 18 45.100	+ 3.6846	− 2	−24 56 54.42	−3.606	− 21
645	β Arae	2.80	K 2	17 20 53.280	+ 4.9872	− 7	−55 28 55.87	−3.425	− 25
1455	[59 G. Apodis]	5.93	M 3	17 21 30.200	+11.2245	+ 26	−80 48 55.63	−3.384	− 41
1457	[44 Ophiuchi]	4.28	F 0	17 23 7.832	+ 3.6640	0	−24 7 42.13	−3.324	− 116
1458	[138 G. Ophiuchi]	6.31	F 5	17 23 12.692	+ 3.1151	+ 48	− 1 36 25.70	−3.154	+ 47
647	[27 H. Ophiuchi]	4.61	F 0	17 23 49.001	+ 3.1832	− 64	− 5 2 28.92	−3.193	− 44
1459	[σ Ophiuchi]	4.44	K 0	17 23 52.959	+ 2.9766	− 1	+ 4 11 5.52	−3.137	+ 6
646	[45 Ophiuchi]	4.37	F 5	17 23 58.013	+ 3.8312	+ 15	−29 49 15.52	−3.276	− 141
650	[77 Herculis]	5.81	A 2	17 25 19.796	+ 1.5900	− 4	+48 18 13.21	−3.026	− 7
648	δ Arae	3.79	B 8	17 26 18.490	+ 5.4164	− 66	−60 38 31.58	−3.020	− 89
649	[υ Scorpii]	2.80	B 3	17 27 9.417	+ 4.0791	0	−37 15 19.84	−2.890	− 31
651	α Arae	2.97	B 3p	17 27 44.423	+ 4.6380	− 28	−49 50 11.07	−2.881	− 72
1460	[λ Herculis]	4.48	K 0	17 28 35.670	+ 2.4244	+ 11	+26 8 57.59	−2.718	+ 18
653	β Draconis	2.99	G 0	17 29 13.960	+ 1.3554	− 21	+52 20 23.66	−2.669	+ 13
652	λ Scorpii	1.71	B 2	17 30 0.384	+ 4.0740	0	−37 4 1.62	−2.640	− 28
655	[ν¹ Draconis]	4.98	A 5	17 31 7.757	+ 1.1810	+165	+55 13 11.40	−2.463	+ 54
657	[ν² Draconis]	4.95	A 5	17 31 13.187	+ 1.1821	+168	+55 12 30.17	−2.457	+ 53

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ′ ″	″	
1462	[Grb 2444 Herc]	5.82	K 0	17 31 26.228	+1.9022	− 71	+41 16 47.59	−2.554	− 64
1461	[−11° 4411 Serp]	5.68	B 8	17 31 49.323	+3.3350	− 10	−11 12 27.85	−2.450	+ 6
659	[27 Draconis]	5.21	K 0	17 32 10.268	−0.2406	− 30	+68 10 8.08	−2.294	+134
656	α Ophiuchi	2.14	A 5	17 32 28.346	+2.7848	+ 80	+12 35 49.78	−2.626	−226
654	ϑ Scorpii	2.04	F 0	17 33 30.425	+4.3109	+ 15	−42 57 58.11	−2.306	+ 3
658	ξ Serpentis	3.64	A 5	17 34 32.964	+3.4350	− 32	−15 22 1.07	−2.280	− 61
664	ω Draconis	4.87	F 5	17 37 15.412	−0.3514	+ 2	+68 46 57.54	−1.663	+323
663	ι Herculis	3.79	B 3	17 37 57.990	+1.6934	− 9	+46 2 1.05	−1.919	+ 4
660	[ϰ Scorpii]	2.51	B 2	17 38 49.089	+4.1503	− 5	−39 0 17.10	−1.875	− 28
662	[μ Arae]	5.26	G 5	17 39 55.946	+4.7631	− 21	−51 48 29.02	−1.937	−188
1463	[58 Ophiuchi]	4.89	F 5	17 40 15.113	+3.5952	− 67	−21 39 33.47	−1.771	− 48
661	η Pavonis	3.58	K 0	17 40 31.600	+5.8896	− 4	−64 42 4.59	−1.747	− 50
665	β Ophiuchi	2.94	K 0	17 40 51.151	+2.9636	− 28	+ 4 35 16.34	−1.512	+159
670	ψ Draconis *pr*	4.90	F 5	17 42 52.511	−1.0668	+ 39	+72 10 31.51	−1.763	−267
666	[ι¹ Scorpii]	3.14	F 5 p	17 43 52.507	+4.1962	+ 2	−40 6 30.59	−1.410	− 4
1464	[X Sagittarii]	4.4–5.0	F 8 v	17 44 13.317	+3.7762	− 2	−27 48 45.03	−1.385	− 9
667	μ Herculis	3.48	G 5	17 44 22.933	+2.3480	−238	+27 45 1.92	−2.107	−744
668	[γ Ophiuchi]	3.74	A 0	17 45 14.001	+3.0081	− 16	+ 2 43 32.48	−1.360	− 71
1465	[+20° 3570 Herc]	5.77	K 0	17 46 8.187	+2.5733	+ 9	+20 34 53.84	−1.210	0
669	[G Scorpii]	3.25	K 2	17 46 14.937	+4.0844	+ 51	−37 1 42.10	−1.165	+ 34
1466	[+9° 3485 Ophi]	6.79	K 5	17 47 38.605	+2.8385	− 27	+ 9 51 46.91	−1.130	− 52
675	35 Draconis	5.04	F 5	17 51 49.033	−2.6867	+109	+76 58 16.50	−0.471	+246
1467	[−7° 4523 Ophi]	6.87	G 5	17 52 5.249	+3.2509	− 35	− 7 43 29.49	−0.747	− 57
671	ξ Draconis	3.90	K 0	17 52 36.605	+1.0371	+110	+56 52 49.32	−0.570	+ 76
1468	[89 Herculis]	5.48	F 5 p	17 53 16.775	+2.4199	− 2	+26 3 25.82	−0.580	+ 6
672	ϑ Herculis	3.99	K 0	17 54 26.013	+2.0572	− 1	+37 15 23.13	−0.479	+ 6
676	γ Draconis	2.42	K 5	17 55 22.403	+1.3928	− 13	+51 29 39.82	−0.424	− 20
674	[ξ Herculis]	3.82	K 0	17 55 42.217	+2.3312	+ 62	+29 15 8.41	−0.393	− 18
673	ν Ophiuchi	3.50	K 0	17 56 6.423	+3.3026	− 6	− 9 46 7.83	−0.458	−120
1469	[93 Herculis]	4.71	K 0	17 57 41.768	+2.6705	− 5	+16 45 9.01	−0.210	− 11
677	67 Ophiuchi	3.95	B 5 p	17 57 59.325	+3.0044	− 4	+ 2 55 57.08	−0.184	− 10
1470	[6 Sagittarii]	6.31	K 2	17 58 18.233	+3.4855	− 2	−17 9 23.89	−0.153	− 7
679	γ Sagittarii	3.07	K 0	18 2 24.115	+3.8538	− 41	−30 25 35.92	+0.028	−185
1471	[ϑ Arae]	3.90	B 1 p	18 2 30.208	+4.6696	− 14	−50 5 50.26	+0.204	− 18
678	[66 G. Apodis]	5.69	K 5	18 3 50.927	+8.3952	+ 45	−75 53 48.05	+0.064	−278
680	72 Ophiuchi	3.73	A 3	18 4 50.127	+2.8441	− 43	+ 9 33 17.43	+0.507	+ 82
681	o Herculis	3.83	A 0	18 5 28.397	+2.3400	− 3	+28 45 14.28	+0.489	+ 9
1472	[−13° 4863 Serp]	6.50	K 0	18 6 42.720	+3.4049	+ 1	−13 56 41.75	+0.591	+ 1
1473	[ε Telescopii]	4.60	K 0	18 7 17.650	+4.4530	− 15	−45 57 56.66	+0.610	− 32
682	μ Sagittarii	4.01	B 8 p	18 10 35.554	+3.5876	+ 1	−21 4 28.40	+0.928	− 1

Mittlere Sternörter 1947.0

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0s.0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0".001
		m		h m s	s		° ' "	"	
1474	[6 G. Telescopii]	5.54	B 5	18 12 39.547	+5.0521	− 22	−56 2 32.43	+1.098	− 12
685	36 Draconis	5.03	F 5	18 13 35.402	+0.3448	+ 529	+64 22 44.73	+1.219	+ 31
684	[Grb 2533 Lyra]	5.42	B 5	18 13 59.742	+1.8657	− 7	+42 8 24.70	+1.220	− 4
683	[η Sagittarii]	3.16	M 3	18 14 2.374	+4.0592	− 109	−36 46 46.51	+1.066	−164
1475	[Br 2292 Serp]	6.30	A 5	18 14 28.950	+3.3029	− 1	− 9 46 42.26	+1.204	− 64
687	[δ Sagittarii]	2.84	K 0	18 17 36.033	+3.8409	+ 31	−29 51 9.24	+1.511	− 29
1477	[κ Lyrae]	4.34	K 0	18 18 0.145	+2.1023	− 17	+36 2 22.52	+1.617	+ 42
1476	[74 Ophiuchi]	4.92	G 5	18 18 13.202	+2.9948	− 4	+ 3 21 6.63	+1.604	+ 10
686	[ξ Pavonis]	4.25	K 2	18 18 20.579	+5.5279	− 5	−61 31 14.49	+1.611	+ 4
688	η Serpentis	3.42	K 0	18 18 33.948	+3.1038	− 372	− 2 54 51.02	+0.927	−697
689	ε Sagittarii	1.95	A 0	18 20 39.252	+3.9825	− 23	−34 24 42.00	+1.681	−126
690	109 Herculis	3.92	K 0	18 21 26.274	+2.5564	+ 137	+21 44 39.58	+1.632	−241
695	χ Draconis	3.69	F 8	18 22 0.733	−1.0828	+1170	+72 42 37.54	+1.566	−356
691	α Telescopii	3.76	B 3	18 23 2.603	+4.4481	− 16	−45 59 58.81	+1.973	− 42
1478	[+7° 3682 Ophi]	5.69	G 0 + A 3	18 23 5.716	+2.8858	− 6	+ 8 0 2.70	+2.012	− 6
1479	[+29° 3259 Herc]	5.71	A 2	18 23 55.973	+2.3125	+ 2	+29 47 49.94	+2.069	− 22
692	[λ Sagittarii]	2.94	K 0	18 24 41.944	+3.7022	− 33	−25 27 10.09	+1.975	−183
696	[γ Scuti]	4.73	A 3	18 26 10.542	+3.4190	0	−14 36 4.86	+2.283	− 3
1480	[60 Serpentis]	5.44	K 0	18 26 55.404	+3.1218	+ 18	− 2 1 16.28	+2.318	− 33
1481	[+16° 3529 Herc]	5.67	A 0	18 28 42.881	+2.6675	− 32	+16 53 25.39	+2.480	− 27
697	[ϑ Coron. austr.]	4.69	G 5	18 29 43.084	+4.2835	+ 25	−42 21 9.97	+2.574	− 21
1483	[Grb 2603 Lyra]	6.66	A 0	18 32 17.732	+1.6947	− 1	+46 10 35.58	+2.830	+ 14
700	[Grb 2655 Draco]	5.84	K 0	18 32 19.154	−2.8991	− 12	+77 30 26.00	+2.817	+ 2
1482	[α Scuti]	4.06	K 0	18 32 19.310	+3.2644	− 14	− 8 16 58.09	+2.507	−312
1484	[+9° 3783 Ophi]	5.40	F 2	18 33 56.037	+2.8610	− 10	+ 9 4 45.40	+2.832	−126
1485	[83 G. Sagittarii]	5.80	A 5	18 34 43.983	+3.5918	− 2	−21 26 36.17	+2.958	− 70
699	α Lyrae	0.14	A 0	18 35 8.566	+2.0310	+ 170	+38 43 59.54	+3.346	+283
701	[Grb 2640 Draco]	6.00	A 3	18 36 3.255	+0.1869	+ 16	+65 26 28.02	+3.222	+ 82
698	ζ Pavonis	4.10	K 0	18 36 51.289	+7.0112	+ 15	−71 28 37.50	+3.054	−160
1486	[δ Scuti]	4.74	F 0	18 39 22.250	+3.2845	+ 3	− 9 6 17.62	+3.429	0
702	[ε Scuti]	5.09	G 5	18 40 38.015	+3.2670	+ 13	− 8 19 45.31	+3.544	+ 6
1487	[φ Sagittarii]	3.30	B 8	18 42 20.708	+3.7477	+ 39	−27 2 49.59	+3.686	+ 1
703	110 Herculis	4.26	F 5	18 43 22.754	+2.5815	− 12	+20 29 39.33	+3.438	−335
1488	[+26° 3349 Lyra]	4.92	K 0	18 43 56.247	+2.4174	+ 12	+26 36 15.16	+3.846	+ 25
1489	[β Scuti]	4.47	G 0	18 44 21.680	+3.1827	− 8	− 4 48 22.33	+3.841	− 17
1491	[111 Herculis]	4.37	A 3	18 44 40.746	+2.6491	+ 48	+18 7 15.98	+3.999	+114
1490	[η¹ Coron. austr.]	5.59	A 2	18 45 1.042	+4.3294	+ 21	−43 44 23.06	+3.902	− 13
1492	[Grb 2671 Draco]	5.76	B 5	18 45 31.974	+1.3402	+ 9	+52 55 44.46	+3.954	− 3
704	λ Pavonis	4.42	B 2	18 47 18.696	+5.5578	− 11	−62 15 3.73	+4.095	− 17
1493	[30 Sagittarii]	6.24	F 0	18 47 39.286	+3.6053	− 21	−22 13 28.64	+4.109	− 31

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ʺ001
		m		h m s	s		° ′ ″	″	
1494	[50 Draconis]	5.37	A 0	18 48 5.527	−1.9397	− 53	+75 22 21.19	+4.251	+ 78
705	β Lyrae	3.4—4.3	B 8p + B 2p	18 48 7.292	+2.2146	− 2	+33 18 0.02	+4.177	− 2
707	ο Draconis	4.85	K 0	18 50 25.137	+0.8848	+ 98	+59 19 23.08	+4.399	+ 25
706	σ Sagittarii	2.14	B 3	18 51 58.761	+3.7194	+ 10	−26 21 51.81	+4.454	− 55
1495	[114 G. Sagittar.]	5.58	F 5	18 52 27.795	+3.4549	− 24	−16 26 34.34	+4.364	−187
709	ϑ Serpentis *pr*	4.50	A 5	18 53 35.028	+2.9822	+ 29	+ 4 7 59.48	+4.682	+ 36
711	R Lyrae	4.0—4.5	M 3	18 53 43.257	+1.8254	+ 17	+43 52 31.23	+4.739	+ 82
708	λ Telescopii	5.03	B 9	18 54 13.607	+4.7993	+ 19	−53 0 36.50	+4.709	+ 8
710	[ξ² Sagittarii]	3.61	K 0	18 54 34.078	+3.5783	+ 20	−21 10 41.23	+4.716	− 14
714	[υ Draconis]	4.91	K 0	18 55 3.136	−0.7356	+ 95	+71 13 36.49	+4.814	+ 47
713	γ Lyrae	3.30	A 0p	18 56 57.562	+2.2438	− 7	+32 36 56.44	+4.932	+ 1
712	[ε Aquilae]	4.21	K 0	18 57 12.943	+2.7225	− 39	+14 59 41.67	+4.880	− 74
716	ζ Aquilae	3.02	A 0	19 2 58.372	+2.7570	− 8	+13 46 59.81	+5.346	− 94
717	λ Aquilae	3.55	B 9	19 3 26.129	+3.1831	− 17	− 4 57 48.93	+5.392	− 87
1496	[τ Sagittarii]	3.42	K 0	19 3 37.914	+3.7451	− 42	−27 44 58.98	+5.246	−250
1497	[21 G. Aquilae]	6.72	B 8	19 3 50.489	+3.1063	+ 10	− 1 25 43.79	+5.504	− 9
1498	[Pi 18ʰ318 Lyra]	5.46	A 5	19 4 31.448	+2.3805	+ 55	+28 32 38.65	+5.657	+ 87
719	[ι Lyrae]	5.13	B 5	19 5 24.518	+2.1403	− 8	+36 0 57.71	+5.645	0
718	α Coron. austr.	4.12	A 2	19 5 52.106	+4.0811	+ 73	−37 59 20.28	+5.585	− 99
720	π Sagittarii	3.02	F 2	19 6 36.743	+3.5673	− 1	−21 6 34.81	+5.709	− 37
1499	[42 G. Octantis]	6.78	A 2	19 9 12.456	+8.1481	− 2	−75 53 31.08	+5.955	− 12
1500	[20 Aquilae]	5.37	B 3	19 9 48.183	+3.2536	+ 6	− 8 1 47.03	+6.006	− 7
723	δ Draconis	3.24	K 0	19 12 32.795	+0.0131	+160	+67 34 6.02	+6.332	+ 93
724	ϑ Lyrae	4.46	K 0	19 14 31.611	+2.0819	− 8	+38 2 17.74	+6.407	+ 2
722	[43 Sagittarii]	5.03	K 0	19 14 32.060	+3.5094	− 9	−19 2 56.42	+6.391	− 16
725	ω Aquilae	5.14	A 5	19 15 19.648	+2.8155	− 4	+11 29 54.54	+6.490	+ 18
726	κ Cygni	3.98	K 0	19 15 52.636	+1.3859	+ 61	+53 16 11.91	+6.639	+123
1501	[162 G. Sagittar.]	5.61	B 5	19 16 9.359	+3.9751	+ 3	−35 31 10.50	+6.538	− 2
729	τ Draconis	4.63	K 0	19 16 34.937	−1.1564	−331	+73 15 27.85	+6.684	+112
727	[υ Sagittarii]	4.58	B 8p + F 2p	19 18 41.516	+3.4351	− 2	−16 3 22.12	+6.744	− 6
1502	[β¹ Sagittarii]	4.31	B 8	19 18 49.840	+4.3120	+ 1	−44 33 37.97	+6.743	− 19
728	α Sagittarii	4.11	B 8	19 20 13.016	+4.1560	+ 26	−40 43 3.20	+6.758	−118
1503	[31 Aquilae]	5.23	G 5	19 22 26.509	+2.8602	+489	+11 49 46.33	+7.697	+639
730	δ Aquilae	3.44	F 0	19 22 49.519	+3.0242	+167	+ 3 0 27.51	+7.173	+ 84
1504	[59 G. Telescopii]	5.58	K 2	19 23 33.106	+4.8186	− 2	−54 25 59.38	+7.164	+ 15
731	[186 G. Sagittar.]	5.68	B 9	19 23 35.624	+3.7910	+ 15	−29 50 59.21	+7.107	− 45
1505	[Br 2462 Vulp]	6.04	K 5	19 24 9.460	+2.6238	− 8	+19 47 5.33	+7.151	− 46
1506	[Grb 2844 Cygn]	6.72	G 5	19 24 19.499	+1.8295	− 46	+44 49 29.50	+7.134	− 76
1507	[Pi 19ʰ156 Draco]	6.46	B 8	19 24 49.188	+1.0838	− 20	+57 55 11.78	+7.259	+ 9
734	Grb 2900 Draco	6.00	A 2	19 24 55.829	−3.6426	+ 40	+79 29 54.20	+7.224	− 31

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ' "	"	
1508	[α Vulpeculae]	4.63	M o	19 26 29.912	+2.4960	− 97	+24 33 23.03	+ 7.285	− 103
1509	[36 Aquilae]	5.22	M o	19 27 53.485	+3.1369	+ 9	− 2 54 2.84	+ 7.496	− 6
733	ι Cygni	3.94	A 2	19 28 22.149	+1.5121	+ 19	+51 36 58.00	+ 7.669	+ 129
732	β Cygni *pr*	3.24	K o + A o	19 28 34.953	+2.4191	− 3	+27 50 49.67	+ 7.553	− 4
1510	[8 Cygni]	4.85	B 3	19 29 48.030	+2.2290	− 6	+34 20 21.06	+ 7.655	0
735	[ι Telescopii]	5.02	K o	19 31 17.346	+4.4496	− 16	−48 12 55.69	+ 7.742	− 35
1511	[μ Aquilae]	4.65	K o	19 31 29.953	+2.9304	+ 141	+ 7 15 54.05	+ 7.638	− 155
736	52 Sagittarii	4.66	B 9	19 33 29.008	+3.6502	+ 51	−25 0 8.22	+ 7.933	− 20
737	[κ Aquilae]	5.04	B o	19 34 2.391	+3.2268	0	− 7 8 48.77	+ 7.993	− 4
738	ϑ Cygni	4.64	F 5	19 35 1.134	+1.6077	− 30	+50 5 51.00	+ 8.328	+ 254
1512	[54 Sagittarii]	5.45	K o	19 37 41.245	+3.4362	+ 46	−16 24 58.77	+ 8.244	− 45
1513	[β Sagittae]	4.45	K o	19 38 40.038	+2.6941	+ 3	+17 21 6.84	+ 8.332	− 34
1514	[55 Sagittarii]	5.10	F o	19 39 29.265	+3.4307	+ 42	−16 14 59.34	+ 8.421	− 11
1515	[10 Vulpeculae]	5.45	G 5	19 41 30.607	+2.4941	+ 4	+25 38 38.01	+ 8.612	+ 20
740	15 Cygni	5.02	K o	19 42 21.808	+2.1632	+ 56	+37 13 30.88	+ 8.693	+ 34
1516	[228 G. Sagittar.]	5.56	B 8	19 42 38.468	+3.8270	+ 2	−32 2 17.39	+ 8.662	− 19
1517	[56 Sagittarii]	5.06	K o	19 43 16.293	+3.4988	− 95	−19 53 24.53	+ 8.645	− 87
739	[ν Telescopii]	5.52	A 5	19 43 42.038	+4.8981	+ 102	−56 29 31.43	+ 8.636	− 129
741	γ Aquilae	2.80	K 2	19 43 44.348	+2.8517	+ 8	+10 28 58.14	+ 8.771	+ 3
743	δ Sagittae	3.78	M o + A o	19 45 1.397	+2.6747	+ 2	+18 24 8.10	+ 8.880	+ 12
744	[51 Aquilae]	5.55	F o	19 47 51.872	+3.3006	− 19	−10 53 58.22	+ 9.125	+ 35
745	α Aquilae	0.89	A 5	19 48 11.804	+2.9265	+ 360	+ 8 43 37.23	+ 9.504	+ 387
746	[η Aquilae]	3.7–4.4	G o p	19 49 46.356	+3.0556	+ 3	+ 0 52 5.62	+ 9.235	− 4
1518	[75 G. Pavonis]	6.32	A 3	19 50 3.697	+5.2397	+ 13	−61 18 35.90	+ 9.272	+ 9
1519	[90 G. Aquilae]	5.64	F o p + A	19 50 32.179	+3.1419	+ 14	− 3 15 11.35	+ 9.314	+ 16
1520	[ι Sagittarii]	4.21	K o	19 51 36.542	+4.1374	+ 7	−42 0 33.81	+ 9.438	+ 56
749	β Aquilae	3.90	K o	19 52 42.537	+2.9463	+ 26	+ 6 16 22.93	+ 8.988	− 478
1521	[η Cygni]	4.03	K o	19 54 18.977	+2.2504	− 30	+34 56 29.55	+ 9.562	− 27
748	ε Pavonis	4.10	A o	19 54 29.982	+6.9405	+ 190	−73 3 12.24	+ 9.475	− 130
1522	[61 Sagittarii]	5.05	A o	19 54 56.717	+3.4017	+ 7	−15 38 0.91	+ 9.543	− 96
751	ϑ¹ Sagittarii	4.39	B 3	19 56 17.384	+3.9036	0	−35 25 16.65	+ 9.717	− 25
752	γ Sagittae	3.71	K 5	19 56 23.922	+2.6675	+ 42	+19 20 49.25	+ 9.777	+ 28
1523	[15 Vulpeculae]	4.74	A 5	19 58 54.983	+2.4705	+ 40	+27 36 21.63	+ 9.951	+ 10
753	[62 Sagittarii]	4.60	M 3	19 59 24.104	+3.6883	+ 27	−27 51 31.62	+ 9.998	+ 20
1524	[τ Aquilae]	5.65	K o	20 1 32.943	+2.9296	+ 5	+ 7 7 37.49	+10.156	+ 16
755	[ξ Telescopii]	4.86	M o	20 3 20.050	+4.5960	− 15	−53 2 3.98	+10.288	+ 12
754	δ Pavonis	3.64	G 5	20 3 32.746	+5.8847	+1974	−66 19 10.78	+ 9.152	−1140
1525	[28 Cygni]	4.82	B 2 p	20 7 27.405	+2.2277	− 2	+36 40 57.28	+10.597	+ 15
756	ϑ Aquilae	3.37	A o	20 8 34.205	+3.0947	+ 22	− 0 58 48.18	+10.672	+ 6
759	κ Cephei	4.43	B 9	20 10 42.604	−2.0209	+ 22	+77 33 9.97	+10.848	+ 28

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0.s0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ' "	"	
1526	[ρ Aquilae]	4.96	A 0	20 11 49.409	+2.7757	+ 36	+15 2 5.29	+10.960	+ 55
757	31 o¹ Cygni	3.95	K 0 + B 8	20 11 57.673	+1.8886	− 3	+46 34 47.17	+10.920	+ 6
758	33 Cygni	4.32	A 3	20 12 9.959	+1.3942	+ 72	+56 24 17.86	+11.012	+ 83
760	24 Vulpeculae	5.45	K 0	20 14 30.919	+2.5669	+ 9	+24 30 24.24	+11.087	− 14
1527	[α¹ Capricorni]	4.55	G 0 p	20 14 42.663	+3.3243	+ 11	−12 40 24.36	+11.120	+ 3
1529	[4 Capricorni]	5.96	K 0	20 14 54.686	+3.5239	+ 23	−21 58 30.98	+11.102	− 29
761	α² Capricorni	3.77	G 5	20 15 6.892	+3.3278	+ 41	−12 42 37.99	+11.151	+ 6
1528	[83 G. Telescopii]	6.28	M 0	20 15 8.314	+4.3017	+ 6	−47 52 36.47	+11.153	+ 5
1530	[290 G. Sagittarii]	6.51	K 2	20 17 26.750	+3.8713	+ 14	−35 50 32.26	+11.343	+ 28
762	[β Capricorni]	3.25	G 0 + A 0	20 18 2.085	+3.3698	+ 26	−14 57 0.73	+11.360	+ 3
763	[κ¹ Sagittarii]	5.64	A 0	20 18 51.940	+4.0728	+ 32	−42 13 5.74	+11.329	− 88
765	γ Cygni	2.32	F 8 p	20 20 19.476	+2.1529	0	+40 5 9.95	+11.522	+ 1
1531	[132 G. Aquilae]	5.41	K 0	20 20 33.079	+2.9718	− 25	+ 5 10 20.46	+11.502	− 35
764	α Pavonis	2.12	B 3	20 21 28.018	+4.7459	+ 11	−56 54 24.44	+11.521	− 82
1532	[296 G. Sagittarii]	5.97	K 0	20 22 12.305	+3.6724	+ 8	−28 50 11.58	+11.675	+ 19
1533	[69 Aquilae]	5.11	K 0	20 26 52.802	+3.1349	+ 44	− 3 3 46.94	+11.971	− 15
1534	[41 Cygni]	4.09	F 5 p	20 27 13.699	+2.4510	+ 2	+30 11 26.12	+12.007	− 3
1535	42 Cygni	5.94	A 0	20 27 18.997	+2.2883	+ 1	+36 16 36.70	+12.017	+ 2
767	ϑ Cephei	4.28	A 5	20 28 41.669	+1.0061	+ 60	+62 48 56.02	+12.100	− 11
1536	[29 G. Capricorni]	5.82	G 5	20 29 29.750	+3.2813	+202	−10 2 8.13	+12.271	+102
1538	[Grb 3241 Draco]	6.42	K 2	20 30 15.201	−0.2578	− 14	+72 21 8.41	+12.202	− 16
768	ε Delphini	3.98	B 5	20 30 40.795	+2.8657	+ 4	+11 7 19.16	+12.233	− 17
1537	[9 G. Delphini]	6.68	K 0	20 31 21.603	+2.9867	+ 6	+ 4 42 59.12	+12.291	− 6
770	73 Draconis	5.18	A 2 p	20 32 13.747	−0.7916	+ 10	+74 46 24.09	+12.343	− 11
769	α Indi	3.21	K 0	20 33 50.841	+4.2189	+ 50	−47 28 40.39	+12.541	+ 72
1539	29 Vulpeculae	4.78	A 0	20 36 9.191	+2.6790	+ 44	+21 0 50.71	+12.633	+ 7
772	[κ Delphini]	5.23	G 5	20 36 33.246	+2.9133	+210	+ 9 53 53.88	+12.673	+ 21
1540	[13 G. Microscopii]	5.54	K 2	20 37 0.626	+3.7636	+ 26	−33 37 14.34	+12.734	+ 50
773	υ Capricorni	5.33	M 0	20 37 2.064	+3.4143	− 15	−18 19 35.84	+12.668	− 18
774	α Delphini	3.86	B 8	20 37 10.507	+2.7862	+ 41	+15 43 26.26	+12.696	+ 1
777	α Cygni	1.33	A 2 p	20 39 37.410	+2.0450	0	+45 5 24.48	+12.864	+ 5
776	[η Indi]	4.70	F 0	20 40 9.464	+4.4048	+172	−52 6 43.08	+12.842	− 54
775	β Pavonis	3.60	A 5	20 40 12.450	+5.4069	− 64	−66 23 44.09	+12.917	+ 18
778	[δ Delphini]	4.53	A 5	20 40 59.005	+2.8005	− 16	+14 53 0.00	+12.911	− 40
779	[ψ Capricorni]	4.26	F 8	20 42 57.629	+3.5512	− 40	−25 27 45.92	+12.928	−155
782	[6 H. Cephei]	4.63	G 0	20 44 2.164	+1.4886	− 87	+57 23 20.28	+12.919	−234
780	ε Cygni	2.64	K 0	20 44 3.890	+2.4273	+283	+33 46 14.80	+13.484	+330
1541	[γ Delphini *sq*]	4.49	G 5	20 44 11.878	+2.7828	− 28	+15 55 55.92	+12.971	−193
783	η Cephei	3.59	K 0	20 44 12.840	+1.2199	+129	+61 37 56.97	+13.986	+822
781	ε Aquarii	3.83	A 0	20 44 48.470	+3.2469	+ 20	− 9 41 27.73	+13.173	− 31

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Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
1544	[Grb 3285 Cygn]	6.43	K 0	20 44 48.919	+1.7390	− 97	+52 48 5.90	+13.098	− 106
1542	[ι Microscopii]	5.14	F 0	20 44 53.965	+4.0664	+ 167	−44 10 59.42	+13.109	− 102
1543	[3 Aquarii]	4.60	M 0	20 44 56.474	+3.1648	− 3	− 5 13 22.79	+13.177	− 37
1545	[−1° 4057 Aqar]	6.53	M 3	20 46 33.705	+3.0840	− 24	− 0 45 37.07	+13.307	− 12
1546	[ω Capricorni]	4.24	M 0	20 48 39.708	+3.5797	− 7	−27 7 7.77	+13.454	− 2
1547	[μ Aquarii]	4.80	A 3	20 49 47.764	+3.2352	+ 26	− 9 11 0.28	+13.502	− 28
785	β Indi	3.72	K 0	20 50 40.988	+4.6882	+ 23	−58 39 20.73	+13.568	− 19
786	32 Vulpeculae	5.24	K 5	20 52 17.958	+2.5568	− 6	+27 51 18.27	+13.691	+ 2
1548	[64 G. Capricor.]	5.95	A 3	20 54 42.701	+3.3577	+ 31	−16 14 12.57	+13.844	0
788	ν Cygni	4.04	A 0	20 55 11.707	+2.2364	+ 5	+40 57 44.38	+13.864	− 9
1549	[33 Vulpeculae]	5.57	K 5	20 55 54.078	+2.6818	− 6	+22 7 12.20	+13.924	+ 6
789	[11 Aquarii]	6.26	G 0	20 57 46.390	+3.1581	+ 26	− 4 56 10.02	+13.904	− 132
1551	[59 Cygni]	4.88	B 0 p	20 58 1.273	+2.0401	0	+47 18 47.91	+14.056	+ 5
1550	[γ Microscopii]	4.71	G 5	20 58 2.690	+3.6793	0	−32 27 58.59	+14.059	+ 6
787	[α Octantis]	5.24	F 2	20 58 22.283	+7.2724	+ 32	−77 13 42.26	+13.711	− 362
790	ζ Microscopii	5.35	F 0	20 59 35.111	+3.8327	− 25	−38 50 23.18	+14.039	− 109
1552	[ϑ Capricorni]	4.19	A 0	21 2 58.199	+3.3719	+ 57	−17 26 40.65	+14.302	− 54
792	[ξ Cygni]	3.92	K 5	21 3 0.049	+2.1821	+ 4	+43 42 56.25	+14.362	+ 5
1553	[−0° 4161 Aqar]	7.10	K 2	21 3 50.192	+3.0790	+ 6	− 0 19 5.95	+14.424	+ 15
791	[A Capricorni]	4.60	M 0	21 4 1.859	+3.5082	− 21	−25 13 8.37	+14.378	− 43
793	61 Cygni *pr*	5.57	K 5	21 4 31.058	+2.6874	+3504	+38 29 16.13	+17.711	+3261
795	Br 2777 Ceph	5.90	B 9	21 6 35.603	−1.2046	+ 60	+77 54 43.06	+14.609	+ 36
794	ν Aquarii	4.52	K 0	21 6 42.500	+3.2672	+ 61	−11 35 14.85	+14.570	− 12
1555	[γ Equulei]	4.76	F 0 p	21 7 45.825	+2.9175	+ 38	+ 9 55 1.32	+14.494	− 151
1554	[o Pavonis]	5.08	M 0	21 8 24.416	+5.6274	+ 85	−70 20 40.16	+14.654	− 32
1556	[58 G. Microscopii]	5.55	K 5	21 10 8.996	+3.5568	+ 73	−27 50 12.37	+14.672	− 116
797	ζ Cygni	3.40	K 0	21 10 40.697	+2.5531	− 4	+30 0 31.17	+14.765	− 53
796	[23 G. Indi]	5.84	A 5	21 11 59.380	+4.2823	+ 18	−53 29 1.66	+14.885	− 11
800	α Equulei	4.14	F 8 + A 3	21 13 10.440	+2.9986	+ 36	+ 5 1 39.73	+14.882	− 83
1557	[24 G. Indi]	6.70	K 0	21 14 16.513	+4.0856	− 24	−48 56 23.22	+14.951	− 79
801	[ε Microscopii]	4.79	A 0	21 14 43.707	+3.6368	+ 39	−32 23 42.69	+15.034	− 21
1558	[σ Cygni]	4.28	A 0 p	21 15 19.889	+2.3562	− 4	+39 10 18.15	+15.087	− 2
1559	[υ Cygni]	4.42	B 3 p	21 15 44.157	+2.4667	+ 6	+34 40 24.48	+15.110	− 2
803	α Cephei	2.60	A 5	21 17 18.877	+1.4314	+ 212	+62 21 37.97	+15.254	+ 52
802	[ϑ¹ Microscopii]	4.92	A 2 p	21 17 22.617	+3.8363	+ 56	−41 2 5.41	+15.206	− 1
1560	[Grb 3434 Cygn]	6.81	K 2	21 17 58.383	+1.9291	+ 6	+52 49 58.96	+15.240	0
1561	[ι Capricorni]	4.30	K 0	21 19 17.864	+3.3399	+ 22	−17 3 41.04	+15.322	+ 6
804	1 Pegasi	4.27	K 0	21 19 38.023	+2.7744	+ 72	+19 34 36.61	+15.402	+ 68
1562	[18 Aquarii]	5.54	A 5	21 21 17.812	+3.2778	+ 60	−13 6 23.80	+15.438	+ 11
805	γ Pavonis	4.30	F 8	21 22 5.312	+4.9614	+ 153	−65 36 27.49	+16.271	+ 799

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		m		h m s	s		° ′ ″	″	
1563	[γ Indi]	6.24	F 0	21 22 29.411	+4.2795	+ 8	−54 53 26.45	+15.540	+ 46
806	ζ Capricorni	3.86	G 5 p	21 23 38.661	+3.4247	+ 1	−22 38 31.18	+15.585	+ 27
1564	[2 G. Pegasi]	6.66	M 0	21 25 48.029	+2.9571	+ 4	+ 7 57 50.61	+15.644	− 32
807	[71 Cygni]	5.34	K 0	21 27 29.443	+2.2139	+ 42	+46 18 22.32	+15.876	+ 108
1565	[2 Pegasi]	4.76	K 5	21 27 32.695	+2.7175	+ 13	+23 24 20.28	+15.777	+ 6
809	β Cephei	3.33	B 1	21 27 59.025	+0.7737	+ 21	+70 19 40.47	+15.807	+ 13
808	β Aquarii	3.07	G 0	21 28 46.174	+3.1577	+ 12	− 5 48 19.18	+15.832	− 4
1566	[6 Piscis austr.]	5.99	A 2	21 29 2.568	+3.6290	+ 6	−34 10 45.40	+15.849	− 3
1567	[3 G. Gruis]	5.73	K 0	21 29 57.937	+3.8872	− 18	−45 5 2.83	+15.897	− 4
1568	[ρ Cygni]	4.22	K 0	21 31 59.073	+2.2565	− 25	+45 21 24.62	+15.917	− 90
811	74 Cygni	5.09	A 5	21 34 49.293	+2.4047	− 7	+40 10 29.14	+16.174	+ 19
1569	[ξ Aquarii]	4.78	A 5	21 34 55.872	+3.1930	+ 74	− 8 5 34.34	+16.140	− 22
1570	[5 Pegasi]	5.29	F 0	21 35 16.518	+2.8074	+ 70	+19 4 45.31	+16.195	+ 16
810	ν Octantis	3.74	K 0	21 35 39.911	+6.6774	+ 185	−77 37 38.13	+15.961	− 240
812	[γ Capricorni]	3.80	F 0 p	21 37 9.400	+3.3232	+ 131	−16 54 9.90	+16.253	− 22
813	[13 H. Cephei]	5.97	O e 5	21 37 18.810	+1.8613	− 7	+57 14 55.79	+16.283	0
817	[11 Cephei]	4.85	K 0	21 41 9.093	+0.8782	+ 235	+71 4 2.02	+16.581	+ 105
815	ε Pegasi	2.54	K 0	21 41 34.915	+2.9462	+ 18	+ 9 37 52.13	+16.503	+ 5
814	[ι Piscis austr.]	4.35	A 0	21 41 47.706	+3.5732	+ 29	−33 16 7.13	+16.418	− 91
1571	[+35°4626 Cygn]	6.60	K 0	21 43 29.505	+2.5439	+ 75	+35 36 43.64	+16.609	+ 17
818	[λ Capricorni]	5.43	A 0	21 43 40.997	+3.2287	+ 17	−11 36 40.60	+16.597	− 4
1572	[ν Cephei]	4.46	A 2 p	21 43 55.079	+1.7307	− 7	+60 52 32.71	+16.615	+ 2
819	δ Capricorni	2.98	A 5	21 44 7.057	+3.3106	+ 181	−16 22 7.45	+16.330	− 293
1574	[11 Pegasi]	5.50	A 0	21 44 32.691	+3.0420	+ 5	+ 2 26 24.72	+16.649	+ 5
1573	[13 G. Gruis]	5.75	G 5	21 44 49.470	+3.9012	+ 159	−47 32 44.97	+16.363	− 295
821	π² Cygni	4.26	B 3	21 44 49.922	+2.2167	+ 2	+49 3 49.30	+16.660	+ 2
820	[o Indi]	5.50	K 2	21 46 20.298	+5.0763	− 44	−69 52 38.81	+16.728	− 3
1575	[14 Pegasi]	5.00	A 0	21 47 29.832	+2.6539	+ 10	+29 55 36.01	+16.763	− 23
1576	[127 G.Capricor.]	6.85	F 8	21 48 23.832	+3.4143	+ 253	−23 31 5.60	+16.745	− 84
1577	[μ Capricorni]	5.18	F 0	21 50 24.490	+3.2702	+ 211	−13 48 7.87	+16.938	+ 14
823	16 Pegasi	5.05	B 3	21 50 38.884	+2.7299	+ 2	+25 40 30.09	+16.938	+ 3
822	γ Gruis	3.16	B 8	21 50 43.537	+3.6320	+ 85	−37 36 54.10	+16.927	− 13
1578	[Br 2880 Ceph]	6.58	A 0	21 52 10.317	+0.7007	+ 79	+73 27 5.28	+17.036	+ 31
1579	[Pi 21ʰ 339 Pegs]	6.62	K 5	21 53 55.138	+2.8049	− 3	+20 59 14.01	+17.105	+ 19
824	[δ Indi]	4.56	F 0	21 54 19.519	+4.0831	+ 63	−55 14 44.22	+17.102	− 3
1580	[98 G. Aquarii]	6.42	K 0	21 56 9.146	+3.1284	− 4	− 4 37 24.24	+16.934	− 254
826	[20 Pegasi]	5.66	F 2	21 58 30.320	+2.9224	+ 35	+12 51 55.23	+17.247	− 46
825	[ε Indi]	4.74	K 5	21 59 19.249	+4.5879	+4808	−57 0 17.73	+14.778	−2551
1581	[λ Gruis]	4.60	K 2	22 2 55.639	+3.6155	− 18	−39 47 59.76	+17.371	− 114
827	α Aquarii	3.19	G 0	22 3 3.703	+3.0808	+ 10	− 0 34 41.07	+17.487	− 4

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		m		h m s	s		° ′ ″	″	
830	20 Cephei	5.39	K 5	22 3 23.688	+1.8236	+ 21	+62 31 36.01	+17.568	+ 64
828	ι Aquarii	4.35	B 8	22 3 34.584	+3.2393	+ 26	−14 7 39.42	+17.460	− 53
831	[ι Pegasi]	3.96	F 5	22 4 32.448	+2.7928	+215	+25 5 8.00	+17.582	+ 28
829	α Gruis	2.16	B 5	22 4 54.112	+3.7803	+123	−47 13 6.72	+17.422	−147
832	[μ Piscis austr.]	4.62	A 2	22 5 17.790	+3.4998	+ 64	−33 14 53.08	+17.549	− 37
833	[27 Pegasi]	5.65	K 0	22 6 52.520	+2.6586	− 49	+32 54 45.99	+17.588	− 63
834	ϑ Pegasi	3.70	A 2	22 7 31.516	+3.0259	+181	+ 5 56 11.26	+17.715	+ 37
835	π Pegasi	4.38	F 5	22 7 37.805	+2.6647	− 13	+32 55 3.02	+17.666	− 17
837	24 Cephei	4.99	G 5	22 8 47.538	+1.1521	+ 63	+72 4 48.00	+17.743	+ 14
836	ζ Cephei	3.62	K 0	22 9 0.687	+2.0814	+ 14	+57 56 22.27	+17.747	+ 8
838	[λ Piscis austr.]	5.40	B 9	22 11 18.758	+3.4000	+ 20	−28 1 49.73	+17.832	0
1583	[1 H. Lacertae]	4.64	K 2	22 11 35.996	+2.5757	+ 33	+39 27 4.74	+17.854	+ 11
1582	[125 G. Aquarii]	6.60	G 5	22 11 46.125	+3.2475	− 8	−16 4 37.04	+17.498	−352
840	ϑ Aquarii	4.32	K 0	22 14 2.269	+3.1652	+ 78	− 8 2 52.55	+17.921	− 19
839	[ε Octantis]	5.11	M 3	22 14 12.750	+6.7367	+303	−80 42 17.81	+17.913	− 34
841	α Tucanae	2.91	K 2	22 14 53.362	+4.1112	− 83	−60 31 28.60	+17.938	− 34
1584	[47 Aquarii]	5.40	K 0	22 18 40.703	+3.3020	− 5	−21 51 52.61	+18.033	− 84
843	[31 Pegasi]	4.93	B 3 p	22 18 54.445	+2.9528	+ 2	+11 56 15.48	+18.142	+ 17
842	γ Aquarii	3.97	A 0	22 18 55.127	+3.0982	+ 85	− 1 39 18.22	+18.138	+ 13
844	β Lacertae	4.58	K 0	22 21 28.240	+2.3595	− 19	+51 57 46.76	+18.034	−185
1585	[π Aquarii]	4.64	B 1 p	22 22 34.188	+3.0635	+ 10	+ 1 6 28.01	+18.264	+ 4
1586	[Pi 22h 97 Pegs]	6.40	K 0	22 23 7.073	+2.8946	+ 13	+18 10 27.13	+18.318	+ 39
1587	[72 G. Indi]	5.70	A 3	22 24 45.179	+4.4194	+277	−67 45 32.44	+18.273	− 65
845	[ν Gruis]	5.48	K 0	22 25 33.195	+3.5158	+ 31	−39 24 2.19	+18.209	−156
846	[δ^1 Gruis]	4.02	G 5	22 26 6.572	+3.5853	+ 24	−43 46 1.33	+18.387	+ 2
1588	[36 Pegasi]	5.82	K 2	22 26 29.201	+2.9942	+ 36	+ 8 51 28.11	+18.383	− 15
1589	[Pi 22h 120 Pegs]	5.96	K 2	22 26 41.015	+2.8111	+ 15	+26 29 29.84	+18.400	− 5
847	[δ Cephei]	*3.7-4.4*	G 0 v	22 27 11.837	+2.2273	+ 11	+58 8 36.34	+18.425	+ 3
1590	[38 Pegasi]	5.51	A 0	22 27 36.131	+2.7444	+ 25	+32 18 2.87	+18.425	− 12
1591	[σ Aquarii]	4.89	A 0	22 27 50.600	+3.1743	0	−10 56 59.41	+18.418	− 27
1592	[β Piscis austr.]	4.40	A 0	22 28 29.833	+3.4108	+ 53	−32 37 6.12	+18.461	− 6
848	α Lacertae	3.85	A 0	22 29 6.145	+2.4719	+139	+50 0 34.42	+18.510	+ 22
1593	[ρ Cephei]	5.50	A 2	22 29 25.775	+0.5312	− 13	+78 33 8.03	+18.484	− 14
1594	[Grb 3834 Ceph]	5.74	A 0	22 31 20.780	+1.0514	− 69	+75 57 11.43	+18.560	− 2
849	[υ Aquarii]	5.29	F 5	22 31 47.830	+3.2811	+155	−20 58 49.33	+18.434	−143
850	η Aquarii	4.13	B 8	22 32 37.962	+3.0826	+ 60	− 0 23 28.42	+18.555	− 50
851	31 Cephei	5.22	F 0	22 34 27.522	+1.4812	+391	+73 22 4.32	+18.694	+ 31
1595	[κ Aquarii]	5.33	K 0	22 35 0.702	+3.1066	− 48	− 4 30 7.00	+18.569	−112
853	[30 Cephei]	5.21	A 2	22 36 45.847	+2.1279	− 12	+63 18 30.95	+18.716	− 20
852	10 Lacertae	4.91	O e 5	22 36 52.704	+2.6924	− 1	+38 46 26.10	+18.736	− 3
854	[ε Piscis austr.]	4.22	B 8	22 37 43.679	+3.3177	+ 21	−27 19 14.06	+18.771	+ 6

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		m		h m s	s		° ' "	"	
855	ζ Pegasi	3.61	B 8	22 38 49.024	+2.9922	+ 53	+10 33 15.04	+18.792	− 7
856	β Gruis	2.24	M 3	22 39 30.683	+3.5821	+ 133	−47 9 44.47	+18.817	− 3
857	η Pegasi	3.10	G 0	22 40 30.830	+2.8126	+ 9	+29 56 36.89	+18.828	− 22
858	[13 Lacertae]	5.24	K 0	22 41 43.344	+2.6758	− 10	+41 32 26.58	+18.896	+ 11
1596	[45 Pegasi]	6.45	K 0	22 42 53.288	+2.9182	− 24	+19 5 12.03	+18.982	+ 63
859	λ Pegasi	4.14	K 0	22 43 58.497	+2.8899	+ 39	+23 17 10.56	+18.945	− 6
1597	[68 Aquarii]	5.43	G 5	22 44 42.460	+3.2219	− 73	−19 53 25.07	+18.774	−198
1598	[−2° 5826 Aqar]	7.58	K 2	22 44 46.017	+3.0891	+ 3	− 2 4 6.33	+18.976	+ 3
860	ε Gruis	3.69	A 2	22 45 21.808	+3.6234	+ 111	−51 35 45.77	+18.931	− 59
861	[τ Aquarii]	4.21	K 5	22 46 47.223	+3.1758	− 10	−13 52 22.10	+18.998	− 31
862	[μ Pegasi]	3.67	K 0	22 47 26.507	+2.8959	+ 107	+24 19 16.73	+19.011	− 36
863	ι Cephei	3.68	K 0	22 47 47.184	+2.1354	− 113	+65 55 17.04	+18.938	−118
1599	69 G. Gruis	5.39	K 2	22 48 1.521	+3.4144	+ 18	−39 26 16.93	+19.057	− 7
864	λ Aquarii	3.84	M 0	22 49 50.992	+3.1293	+ 5	− 7 51 43.64	+19.151	+ 40
865	ρ Indi	6.14	G 0	22 51 0.138	+4.1752	− 73	−70 21 26.67	+19.216	+ 74
866	δ Aquarii	3.51	A 2	22 51 50.354	+3.1833	− 29	−16 6 11.33	+19.143	− 20
1600	[+36° 4956 Lacr]	6.00	F 2	22 52 34.453	+2.7905	+ 70	+36 47 38.16	+19.197	+ 15
867	α Piscis austr.	1.29	A 3	22 54 43.586	+3.3149	+ 258	−29 54 12.92	+19.077	−159
868	[ζ Gruis]	4.18	G 5	22 57 45.692	+3.5420	− 74	−53 2 19.55	+19.305	− 4
869	o Andromedae	3.63	B 5 +A 2 p	22 59 28.600	+2.7607	+ 18	+42 2 27.22	+19.350	+ 2
1601	[π Piscis austr.]	5.13	F 0	23 0 34.102	+3.3186	+ 53	−35 2 10.88	+19.462	+ 89
1602	[β Piscium]	4.58	B 5 p	23 1 10.707	+3.0529	+ 6	+ 3 32 3.69	+19.384	− 3
870	β Pegasi	2.61	M 0	23 1 12.049	+2.9087	+ 141	+27 47 41.94	+19.530	+143
871	α Pegasi	2.57	A 0	23 2 7.098	+2.9885	+ 42	+14 55 11.04	+19.371	− 36
1603	[55 Pegasi]	4.69	M 0	23 4 19.954	+3.0221	+ 5	+ 9 7 22.21	+19.447	− 8
1604	[5 Andromedae]	5.83	F 0	23 5 20.495	+2.7253	+ 152	+49 0 24.58	+19.615	+139
873	88 Aquarii	3.80	K 0	23 6 37.384	+3.1983	+ 39	−21 27 37.42	+19.541	+ 40
1605	[ι Gruis]	4.10	K 0	23 7 21.957	+3.3953	+ 124	−45 32 2.64	+19.499	− 18
1606	[59 Pegasi]	5.15	A 3	23 9 3.523	+3.0289	− 7	+ 8 25 55.06	+19.549	− 1
875	Br 3077 Cass	5.65	K 2	23 10 43.192	+2.8890	+2524	+56 52 31.80	+19.881	+300
1607	[φ Aquarii]	4.40	M 0	23 11 34.652	+3.1067	+ 24	− 6 20 6.06	+19.407	−190
1608	[ψ¹ Aquarii]	4.48	K 0	23 13 6.925	+3.1431	+ 251	− 9 22 36.50	+19.614	− 11
876	[25 G. Tucanae]	5.69	G 0	23 13 47.432	+3.6076	+ 252	−62 17 25.59	+19.613	− 24
877	γ Tucanae	4.10	F 2	23 14 20.943	+3.5011	− 38	−58 31 35.42	+19.741	+ 94
878	γ Piscium	3.85	K 0	23 14 25.000	+3.1100	+ 506	+ 2 59 32.76	+19.672	+ 24
879	γ Sculptoris	4.51	K 0	23 15 57.987	+3.2394	+ 17	−32 49 15.47	+19.614	− 60
1609	[ψ³ Aquarii]	5.16	A 0	23 16 12.291	+3.1205	+ 30	− 9 54 2.73	+19.682	+ 4
880	τ Pegasi	4.65	A 5	23 18 0.594	+2.9698	+ 21	+23 27 0.06	+19.705	− 2
1610	[12 Andromedae]	5.75	F 5	23 18 19.387	+2.8955	+ 103	+37 53 33.50	+19.647	− 66
1611	[11 G.Sculptoris]	5.81	G 5	23 18 26.255	+3.1964	− 10	−27 16 38.33	+19.703	− 12
1612	[98 Aquarii]	4.20	K 0	23 20 11.324	+3.1503	− 87	−20 23 24.42	+19.653	− 88

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Verände-rung 1947.5	Jährl. Eigen-bew. in 0s.0001	Dekl. 1947.0	Jährl. Verände-rung 1947.5	Jährl. Eigen-bew. in 0″.001
		m		h m s	s		° ′ ″	″	
1613	[67 Pegasi]	5.46	A 0	23 22 14.842	+2.9367	+ 8	+32 5 36.57	+19.776	+ 4
882	4 Cassiopeiae	5.20	K 5	23 22 28.320	+2.6647	+ 7	+61 59 30.08	+19.769	− 6
881	[υ Pegasi]	4.57	G 0	23 22 43.808	+2.9947	+137	+23 6 43.66	+19.821	+ 42
883	[ο Gruis]	5.54	F 0	23 23 39.116	+3.3558	+ 25	−53 0 54.70	+19.924	+133
884	ϰ Piscium	4.94	A 2 p	23 24 12.856	+3.0753	+ 56	+ 0 57 54.90	+19.709	− 90
1614	[ϑ Piscium]	4.45	G 5	23 25 16.672	+3.0433	− 84	+ 6 5 15.50	+19.774	− 39
1615	[+15° 4830 Pegs]	6.98	A 2	23 26 22.072	+3.0184	+ 1	+15 43 13.61	+19.837	+ 9
885	70 Pegasi	4.67	K 0	23 26 28.303	+3.0343	+ 42	+12 28 5.04	+19.868	+ 39
886	[β Sculptoris]	4.46	B 9	23 30 8.037	+3.2166	+ 73	−38 6 41.95	+19.894	+ 21
1616	[15 Andromedae]	5.50	A 0	23 32 1.572	+2.9356	− 15	+39 56 38.86	+19.856	− 38
1617	[ι Phoenicis]	4.80	A 2 p	23 32 13.810	+3.2267	+ 35	−42 54 29.82	+19.904	+ 8
888	248 G. Aquarii	6.51	K 0	23 32 48.012	+3.0945	− 3	− 7 45 28.35	+19.927	+ 25
890	λ Andromedae	4.00	K 0	23 34 57.702	+2.9368	+152	+46 10 15.32	+19.508	−416
889	[11 G. Phoenicis]	4.86	A 2	23 35 0.182	+3.2289	+ 64	−45 47 8.62	+19.919	− 5
891	ι Andromedae	4.28	B 8	23 35 31.773	+2.9430	+ 23	+42 58 28.37	+19.931	+ 3
893	γ Cephei	3.42	K 0	23 37 9.071	+2.4604	−214	+77 20 11.57	+20.101	+157
892	ι Piscium	4.28	F 8	23 37 13.342	+3.0858	+250	+ 5 20 20.06	+19.512	−432
1619	[ϰ Andromedae]	4.33	A 0	23 37 47.391	+2.9556	+ 73	+44 2 25.36	+19.934	− 15
1618	[μ Sculptoris]	5.33	K 0	23 37 51.492	+3.1474	− 74	−32 21 58.57	+19.901	− 49
1620	[λ Piscium]	4.61	A 5	23 39 20.449	+3.0613	− 88	+ 1 29 18.05	+19.818	−143
894	ω^2 Aquarii	4.62	A 0	23 39 58.472	+3.1107	+ 66	−14 50 17.23	+19.902	− 64
1621	[106 Aquarii]	5.26	B 8	23 41 27.221	+3.1114	+ 19	−18 34 16.09	+19.983	+ 6
1622	[ψ Andromedae]	5.09	K 0 + A 5	23 43 23.948	+2.9734	+ 6	+46 7 33.55	+19.989	− 1
1623	[20 Piscium]	5.60	K 0	23 45 12.998	+3.0838	+ 60	− 3 3 22.56	+20.013	+ 12
895	41 H. Cephei	5.02	A 0	23 45 21.631	+2.8689	+ 13	+67 30 44.29	+20.005	+ 3
896	δ Sculptoris	4.64	A 0	23 46 10.097	+3.1248	+ 81	−28 25 24.32	+19.906	−100
1624	[Pi 23^h 194 Aqar]	7.14	K 0	23 46 41.528	+3.1041	− 3	−21 54 31.88	+20.021	+ 12
897	[268 G. Aquarii]	6.08	K 0	23 47 30.634	+3.0956	+ 92	−10 16 12.44	+20.091	+ 79
898	φ Pegasi	5.23	M 0	23 49 47.269	+3.0525	− 5	+18 49 33.36	+19.992	− 30
1625	[82 Pegasi]	5.39	A 3	23 49 54.753	+3.0605	− 16	+10 39 8.83	+20.031	+ 7
899	ρ Cassiopeiae	4.4–5.1	F 8 p	23 51 43.417	+2.9980	− 7	+57 12 16.49	+20.035	+ 5
1626	[27 G. Phoenicis]	6.01	F 8	23 51 52.138	+3.1457	+320	−40 35 43.95	+20.064	+ 34
1627	[Grb 4163 Ceph]	6.57	B 9	23 52 13.367	+2.9118	− 26	+74 6 55.12	+20.030	− 1
1628	[Pi 23^h 235 Pegs]	6.30	M 0	23 53 59.205	+3.0572	− 16	+22 21 11.57	+20.040	+ 4
1629	[ψ Pegasi]	4.75	M 0	23 55 3.196	+3.0572	− 27	+24 50 48.74	+20.013	− 25
900	27 Piscium	5.07	K 0	23 55 57.553	+3.0716	− 33	− 3 51 0.04	+19.974	− 66
901	[π Phoenicis]	5.14	K 0	23 56 11.429	+3.1082	+ 56	−53 2 30.65	+20.109	+ 69
902	ω Piscium	4.03	F 5	23 56 35.252	+3.0811	+101	+ 6 34 11.65	+19.932	−108
903	ε Tucanae	4.71	B 9	23 57 10.621	+3.1187	+ 89	−65 52 19.03	+20.023	− 19
904	[ϑ Octantis]	4.73	K 0	23 58 54.112	+3.0860	−151	−77 21 29.27	+19.883	−160
1630	[30 Piscium]	4.66	M 3	23 59 14.493	+3.0771	+ 34	− 6 18 30.78	+20.010	− 33

Von den Sternen, deren Namen eingeklammert sind, folgen keine Ephemeriden.

Nördliche Polsterne

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″001
		m		h m s	s		° ′ ″	″	
Na	43 H. Cephei	4.52	K 0	1 1 6.28	+ 8.162	+ 78	+85 58 26.28	+19.327	− 6
Nb	α Ursae min.	2.12*	F 8 v	1 46 52.47	+38.338	+175	+89 0 50.14	+17.885	− 5
Nα	[Br 256 Ceph]	6.86	K 0	2 8 24.46	+ 9.176	+ 39	+83 18 53.84	+16.935	− 41
Nβ	[Br 402 Ceph]	5.78	K 0	3 19 23.69	+14.209	+ 57	+84 43 45.20	+12.786	−130
Nc	Grb 750 Ceph	6.70	F 8	4 18 59.20	+18.154	+ 18	+85 24 37.68	+ 8.568	+ 28
Nγ	[+85° 74 Ceph]	6.54	A 5	5 12 46.12	+21.310	+ 24	+85 53 28.46	+ 4.005	− 81
Nδ	[Grb 944 Ceph]	6.41	K 0	5 44 37.69	+18.874	+ 12	+85 10 23.46	+ 1.333	+ 3
Nd	51 H. Cephei	5.26	M 0	7 16 26.15	+28.208	− 48	+87 7 54.48	− 6.615	− 34
Nε	[Grb 1359 Caml]	6.39	A 0	8 4 30.70	+14.354	− 8	+84 13 2.11	−10.392	− 22
Nζ	[+84° 196 Caml]	6.26	F 0	9 4 38.83	+12.519	+ 18	+84 23 53.87	−14.454	+ 9
Ne	1 H. Draconis	4.58	K 2	9 29 41.80	+ 8.557	− 7	+81 33 48.03	−15.907	− 18
Nf	30 H. Camelop.	5.34	F 2	10 24 47.99	+ 7.311	− 44	+82 49 46.98	−18.316	+ 25
Nη	[+86° 161 Caml]	7.17	A 2	11 8 27.08	+ 7.212	− 41	+85 55 42.22	−19.539	+ 1
Nϑ	[Grb 1850 Caml]	6.38	F 5	12 2 1.37	+ 2.858	− 50	+85 52 50.70	−19.955	+ 88
Nι	[Grb 2063 Caml]	6.16	G 5	13 43 45.87	− 1.677	+ 20	+83 1 7.15	−18.072	− 48
Nκ	[Grb 2196 UMin]	5.73	G 0	14 53 45.72	− 4.036	+ 90	+82 43 51.42	−14.786	−232
Nλ	[Grb 2315 UMin]	7.32	A 2	15 48 46.88	− 6.214	+ 4	+83 6 36.00	−10.863	− 1
Ng	ε Ursae min.	4.40	G 5	16 51 19.33	− 6.152	+ 6	+82 7 39.35	− 5.918	+ 4
Nh	δ Ursae min.	4.44	A 0	17 49 16.63	−19.449	+ 12	+86 36 37.62	− 0.895	+ 55
Ni	λ Ursae min.	6.55	M 3	18 25 13.02	−77.121	−112	+89 2 57.40	+ 2.146	+ 2
Nμ	[Br 2412 Drac]	6.15	A 2	18 31 11.58	− 7.926	+ 6	+83 8 24.47	+ 2.683	− 31
Nν	[Grb 3212 Drac]	6.61	A 2	20 7 19.52	− 8.770	− 9	+84 31 4.81	+10.525	− 41
Nk	76 Draconis	5.69	A 0	20 46 32.87	− 4.338	+ 14	+82 20 12.37	+13.342	+ 27
Nξ	[32 H. Cephei]	5.38	A 0	22 17 48.20	− 4.812	+ 51	+85 50 32.67	+18.131	+ 49
No	[36 H. Cephei]	4.96	K 5	22 54 54.54	− 0.470	+ 58	+84 3 46.05	+19.273	+ 33
Nπ	[V Cephei]	6.42	A 0	23 53 55.46	+ 2.815	+ 26	+82 53 46.21	+20.054	+ 18

* var.

Von den Sternen, deren Namen eingeklammert sind, folgen keine Ephemeriden.

Südliche Polsterne

Nr.	Name	Größe	Spektrum	AR. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0ˢ.001	Dekl. 1947.0	Jährl. Veränderung 1947.5	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
Sα	[o Octantis]	7.22	A 0	0 12 16.69	+ 0.070	+ 45	−88 39 27.55	+20.017	+ 3
Sa	4 G. Octantis	5.63	K 0	1 40 15.54	− 3.420	+ 22	−85 2 17.22	+18.181	+ 25
Sβ	[Lac 1029 Octn]	7.76	F 0	2 28 33.47	− 8.325	+ 1	−85 57 20.50	+15.960	− 21
Sγ	[Lac 1848 Octn]	8.35	G 5	2 39 27.31	−27.196	− 48	−88 22 50.72	+15.375	− 21
Sδ	[12 G. Mensae]	6.76	A 2	4 28 54.30	− 6.993	− 10	−83 1 1.40	+ 7.765	+ 2
Sb	ξ Mensae	5.85	K 0	5 4 49.67	− 6.844	− 3	−82 32 40.69	+ 4.794	+ 10
Sε	[31 G. Mensae]	6.24	A 0	5 40 25.57	−11.612	− 8	−84 49 2.99	+ 1.767	+ 49
Sζ	[6 G. Octantis]	6.74	K 0	5 53 50.22	−15.720	− 15	−85 55 52.72	+ 0.554	+ 4
Sη	[7 G. Octantis]	6.41	F 2	7 6 2.42	−20.995	+ 10	−86 57 10.52	− 5.678	+ 3
Sϑ	[A Octantis]	7.75	A 0	7 15 22.58	−51.817	− 9	−88 40 41.88	− 6.423	+ 15
Sc	ζ Octantis	5.38	F 0	9 4 47.04	− 8.660	− 92	−85 27 14.67	−14.424	+ 36
Sι	[10 G. Octantis]	6.74	A 0	10 34 19.34	− 3.607	− 2	−85 48 59.73	−18.653	+ 4
Sκ	[η Octantis]	6.26	A 0	10 59 43.75	− 0.458	− 45	−84 18 31.53	−19.359	− 5
Sd	ι Octantis	5.38	K 0	12 49 11.30	+ 6.274	+ 46	−84 50 10.00	−19.557	+ 25
Sλ	[κ Octantis]	5.65	A 2	13 31 56.63	+ 9.669	− 68	−85 30 58.70	−18.471	− 23
Se	20 G. Octantis	6.52	A 2	14 59 58.05	+29.163	−178	−87 56 10.16	−14.229	− 69
Sμ	[ρ Octantis]	5.66	A 2	15 30 44.58	+13.808	+ 92	−84 17 38.86	−12.052	+ 91
Sf	26 G. Octantis	6.13	A 0	16 40 43.09	+22.409	+ 10	−86 16 35.39	− 6.782	0
Sg	χ Octantis	5.22	K 0	18 24 0.94	+35.438	− 70	−87 39 16.08	+ 1.991	−131
Sν	[44 G. Octantis]	6.32	K 0	19 46 22.80	+11.058	+ 5	−81 29 15.07	+ 8.981	+ 1
Sh	σ Octantis	5.48	F 0	20 11 10.10	+78.432	+132	−89 8 51.55	+10.900	− 3
Sξ	[48 G. Octantis]	7.08	A 0	20 30 17.57	+14.290	+ 36	−84 35 34.51	+12.210	− 20
So	[B Octantis]	6.54	A 5	22 18 25.89	+39.075	+ 62	−89 5 30.73	+18.078	− 41
Sπ	[υ Octantis]	5.74	K 0	22 22 5.26	+11.446	− 37	−86 14 21.77	+18.307	+ 62
Si	β Octantis	4.34	F 0	22 40 46.16	+ 6.136	− 23	−81 39 37.52	+18.867	+ 9
Sk	τ Octantis	5.56	K 0	23 20 55.19	+ 8.916	+ 27	−87 46 26.73	+19.764	+ 11

Von den Sternen, deren Namen eingeklammert sind, folgen keine Ephemeriden.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Tag		1) α Andromedae AR.	Diff.	1) α Andromedae Dekl.	Diff.	2) β Cassiopeiae AR.	Diff.	2) β Cassiopeiae Dekl.	Diff.	3) ε Phoenicis AR.	Diff.	3) ε Phoenicis Dekl.	Diff.	7) γ Pegasi AR.	Diff.	7) γ Pegasi Dekl.	Diff.
1947		$0^h\ 5^m$		$+28°\ 47'$		$0^h\ 6^m$		$+58°\ 51'$		$0^h\ 6^m$		$-46°\ 2'$		$0^h\ 10^m$		$+14°\ 53'$	
		s		″		s		″		s		″		s		″	
Jan.	0	37.277	139	54.87	88	18.514	320	37.63	69	42.643	188	44.59	36	29.015	115	18.32	81
	10	37.138	133	53.99	115	18.194	309	36.94	120	42.455	172	44.23	81	28.900	109	17.51	91
	20	37.005	122	52.84	135	17.885	285	35.74	167	42.283	152	43.42	125	28.791	100	16.60	98
	30	36.883	103	51.49	151	17.600	249	34.07	207	42.131	125	42.17	167	28.691	85	15.62	102
Febr.	9	36.780	79	49.98	160	17.351	200	32.00	238	42.006	93	40.50	203	28.606	64	14.60	100
	19	36.701	47	48.38	160	17.151	140	29.62	260	41.913	56	38.47	236	28.542	38	13.60	92
März	1	36.654	11	46.78	155	17.011	71	27.02	269	41.857	13	36.11	263	28.504	7	12.68	80
	11	36.643	30	45.23	140	16.940	4	24.33	267	41.844	32	33.48	285	28.497	30	11.88	61
	21	36.673	76	43.83	119	16.944	84	21.66	255	41.876	81	30.63	301	28.527	70	11.27	38
	31	36.749	123	42.64	90	17.028	164	19.11	231	41.957	133	27.62	313	28.597	112	10.89	11
April	10	36.872	169	41.74	58	17.192	242	16.80	199	42.090	185	24.49	316	28.709	154	10.78	19
	20	37.041	214	41.16	22	17.434	313	14.81	158	42.275	235	21.33	314	28.863	195	10.97	50
	30	37.255	254	40.94	18	17.747	377	13.23	112	42.510	283	18.19	305	29.058	233	11.47	82
Mai	10	37.509	289	41.12	57	18.124	430	12.11	62	42.793	325	15.14	289	29.291	266	12.29	113
	20	37.798	316	41.69	95	18.554	470	11.49	9	43.118	361	12.25	267	29.557	293	13.42	141
	30	38.114	336	42.64	132	19.024	497	11.40	44	43.479	389	9.58	239	29.850	312	14.83	166
Juni	9	38.450	346	43.96	165	19.521	509	11.84	96	43.868	409	7.19	204	30.162	323	16.49	188
	19	38.796	348	45.61	193	20.030	509	12.80	145	44.277	416	5.15	166	30.485	327	18.37	203
	29	39.144	339	47.54	217	20.539	495	14.25	191	44.693	414	3.49	122	30.812	321	20.40	214
Juli	9	39.483	324	49.71	235	21.034	469	16.16	231	45.107	401	2.27	76	31.133	308	22.54	220
	19	39.807	301	52.06	247	21.503	431	18.47	267	45.508	378	1.51	28	31.441	287	24.74	220
	29	40.108	270	54.53	254	21.934	385	21.14	296	45.886	344	1.23	20	31.728	261	26.94	215
Aug.	8	40.378	235	57.07	255	22.319	332	24.10	318	46.230	304	1.43	66	31.989	228	29.09	206
	18	40.613	197	59.62	251	22.651	273	27.28	334	46.534	255	2.09	110	32.217	193	31.15	192
	28	40.810	156	62.13	242	22.924	210	30.62	343	46.789	201	3.19	149	32.410	156	33.07	175
Sept.	7	40.966	115	64.55	229	23.134	146	34.05	345	46.990	145	4.68	181	32.566	117	34.82	156
	17	41.081	75	66.84	212	23.280	83	37.50	341	47.135	87	6.49	206	32.683	80	36.38	135
	26	^{23}41.156	37	68.96	192	^{23}23.363	20	40.91	329	^{23}47.222	32	8.55	222	^{24}32.763	44	37.73	112
Okt.	6	41.193	2	70.88	169	23.383	39	44.20	311	47.254	20	10.77	230	32.807	12	38.85	90
	16	41.195	30	72.57	144	23.344	95	47.31	285	47.234	68	13.07	226	32.819	17	39.75	67
	26	41.165	58	74.01	116	23.249	147	50.16	255	47.166	109	15.33	214	32.802	43	40.42	45
Nov.	5	41.107	82	75.17	87	23.102	193	52.71	218	47.057	143	17.47	191	32.759	63	40.87	24
	15	41.025	100	76.04	56	22.909	233	54.89	174	46.914	168	19.38	162	32.696	81	41.11	2
	25	40.925	116	76.60	24	22.676	267	56.63	127	46.746	185	21.00	125	32.615	94	41.13	18
Dez.	5	40.809	128	76.84	7	22.409	293	57.90	75	46.561	195	22.25	84	32.521	104	40.95	37
	15	40.681	134	76.77	39	22.116	311	58.65	22	46.366	197	23.09	39	32.417	109	40.58	54
	25	40.547	136	76.38	69	21.805	316	58.87	34	46.169	193	23.48	8	32.308	113	40.04	70
	35	40.411		75.69		21.489		58.53		45.976		23.40		32.195		39.34	
Mittl. Ort		38.539		52.48		20.115		27.16		43.648		22.89		30.178		20.52	
sec δ, tg δ		1.141		+0.550		1.934		+1.655		1.441		−1.037		1.035		+0.266	
a, a'		+3.1		+20.0		+3.1		+20.0		+3.0		+20.0		+3.1		+20.0	
b, b'		+0.04		− 0.02		+0.11		− 0.03		−0.07		− 0.03		+0.02		− 0.05	

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Tag		9) ι Ceti				10) ζ Tucanae[1])				11) β Hydri[2])				12) α Phoenicis			
		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947		$0^h\ 16^m$		$-9°\ 6'$		$0^h\ 17^m$		$-65°\ 10'$		$0^h\ 22^m$		$-77°\ 32'$		$0^h\ 23^m$		$-42°\ 35'$	
Jan.	0	^{s}42.577	107	″73.70	52	^{s}18.61	39	″94.96	82	^{s}59.63	86	″95.42	106	^{s}39.290	178	″57.53	11
	10	42.470	102	74.22	38	18.22	35	94.14	138	58.77	80	94.36	164	39.112	170	57.42	55
	20	42.368	93	74.60	21	17.87	32	92.76	190	57.97	72	92.72	218	38.942	154	56.87	98
	30	42.275	79	74.81	3	17.55	27	90.86	237	57.25	62	90.54	267	38.788	132	55.89	140
Febr.	9	42.196	60	74.84	17	17.28	22	88.49	278	56.63	51	87.87	307	38.656	105	54.49	178
	19	42.136	36	74.67	38	17.06	14	85.71	311	56.12	37	84.80	339	38.551	72	52.71	213
März	1	42.100	7	74.29	61	16.92	8	82.60	339	55.75	24	81.41	365	38.479	35	50.58	242
	11	42.093	26	73.68	84	16.84	0	79.21	358	55.51	9	77.76	380	38.444	9	48.16	267
	21	42.119	64	72.84	109	16.84	7	75.63	369	55.42	7	73.96	388	38.453	55	45.49	286
	31	42.183	103	71.75	132	16.91	16	71.94	372	55.49	22	70.08	388	38.508	105	42.63	301
April	10	42.286	144	70.43	154	17.07	24	68.22	368	55.71	38	66.20	379	38.613	155	39.62	310
	20	42.430	184	68.89	174	17.31	32	64.54	357	56.09	52	62.41	362	38.768	204	36.52	311
	30	42.614	221	67.15	191	17.63	39	60.97	337	56.61	66	58.79	337	38.972	252	33.41	306
Mai	10	42.835	254	65.24	205	18.02	46	57.60	310	57.27	79	55.42	306	39.224	295	30.35	296
	20	43.089	283	63.19	214	18.48	52	54.50	278	58.06	90	52.36	268	39.519	333	27.39	277
	30	43.372	303	61.05	218	19.00	57	51.72	237	58.96	98	49.68	224	39.852	363	24.62	253
Juni	9	43.675	318	58.87	216	19.57	60	49.35	192	59.94	106	47.44	174	40.215	383	22.09	222
	19	43.993	323	56.71	209	20.17	62	47.43	143	61.00	109	45.70	121	40.598	395	19.87	186
	29	44.316	320	54.62	196	20.79	62	46.00	90	62.09	111	44.49	65	40.993	397	18.01	146
Juli	9	44.636	310	52.66	179	21.41	61	45.10	35	63.20	110	43.84	8	41.390	387	16.55	101
	19	44.946	292	50.87	158	22.02	58	44.75	20	64.30	104	43.76	50	41.777	369	15.54	55
	29	45.238	266	49.29	133	22.60	53	44.95	75	65.34	97	44.26	106	42.146	340	14.99	8
Aug.	8	45.504	236	47.96	105	23.13	47	45.70	126	66.31	87	45.32	158	42.486	304	14.91	40
	18	45.740	202	46.91	75	23.60	40	46.96	173	67.18	73	46.90	204	42.790	260	15.31	85
	28	45.942	164	46.16	46	24.00	32	48.69	214	67.91	57	48.94	243	43.050	212	16.16	125
Sept.	7	46.106	126	45.70	18	24.32	23	50.83	246	68.48	41	51.37	274	43.262	161	17.41	161
	17	46.232	87	45.52	9	24.55	13	53.29	267	68.89	23	54.11	294	43.423	108	19.02	190
	26*)	26 46.319	51	45.61	33	26 24.68	3	55.96	280	27 69.12	4	57.05	302	43.531	55	20.92	210
Okt.	6	46.370	17	45.94	52	24.71	5	58.76	281	69.16	15	60.07	300	28 43.586	5	23.02	221
	16	46.387	12	46.46	68	24.66	14	61.57	270	69.01	32	63.07	284	43.591	40	25.23	224
	26	46.375	39	47.14	80	24.52	22	64.27	248	68.69	48	65.91	257	43.551	80	27.47	215
Nov.	5	46.336	60	47.94	85	24.30	28	66.75	215	68.21	62	68.48	219	43.471	114	29.62	199
	15	46.276	78	48.79	87	24.02	33	68.90	173	67.59	74	70.67	172	43.357	140	31.61	173
	25	46.198	90	49.66	84	23.69	37	70.63	124	66.85	81	72.39	117	43.217	161	33.34	141
Dez.	5	46.108	99	50.50	80	23.32	40	71.87	69	66.04	87	73.56	57	43.056	174	34.75	103
	15	46.009	104	51.30	70	22.92	40	72.56	11	65.17	89	74.13	5	42.882	180	35.78	61
	25	45.905	105	52.00	59	22.52	39	72.67	47	64.28	88	74.08	68	42.702	181	36.39	16
	35	45.800		52.59		22.13		72.20		63.40		73.40		42.521		36.55	
Mittl. Ort		43.614		63.10		19.38		69.86		59.97		69.25		40.141		36.78	
sec δ, tg δ		1.013		−0.161		2.383		−2.163		4.639		−4.530		1.358		−0.919	
a, *a*′		+3.1		+20.0		+2.9		+20.0		+2.5		+19.9		+2.9		+19.9	
b, *b*′		−0.01		−0.07		−0.14		−0.08		−0.30		−0.10		−0.06		−0.10	

[1]) Die jährliche Parallaxe (0.″133) ist bereits berücksichtigt.

[2]) Die jährliche Parallaxe (0.″143) ist bereits berücksichtigt.

Stern 11) und 12) lies Sept. 27.

Tag	13) 12 Ceti				17) ζ Cassiopeiae				18) π Andromedae				20) δ Andromedae			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$0^h\ 27^m$		$-4°\ 14'$		$0^h\ 33^m$		$+53°\ 36'$		$0^h\ 34^m$		$+33°\ 25'$		$0^h\ 36^m$		$+30°\ 34'$	
	s		″		s		″		s		″		s		″	
Jan. 0	18.989	108	68.32	60	58.992	266	29.80	41	1.448	155	44.65	64	28.131	146	19.92	65
10	18.881	105	68.92	50	58.726	265	29.39	90	1.293	155	44.01	95	27.985	147	19.27	93
20	18.776	98	69.42	38	58.461	253	28.49	135	1.138	148	43.06	122	27.838	141	18.34	116
30	18.678	85	69.80	24	58.208	230	27.14	174	0.990	134	41.84	143	27.697	128	17.18	135
Febr. 9	18.593	69	70.04	7	57.978	196	25.40	206	0.856	113	40.41	159	27.569	108	15.83	148
19	18.524	45	70.11	12	57.782	150	23.34	229	0.743	83	38.82	166	27.461	80	14.35	155
März 1	18.479	18	69.99	32	57.632	95	21.05	241	0.660	47	37.16	167	27.381	45	12.80	153
11	18.461	16	69.67	55	57.537	32	18.64	243	0.613	4	35.49	159	27.336	4	11.27	144
21	18.477	53	69.12	79	57.505	37	16.21	235	0.609	44	33.90	142	27.332	41	9.83	128
31	18.530	92	68.33	103	57.542	107	13.86	217	0.653	94	32.48	120	27.373	90	8.55	104
April 10	18.622	133	67.30	127	57.649	178	11.69	189	0.747	144	31.28	90	27.463	140	7.51	76
20	18.755	174	66.03	150	57.827	246	9.80	153	0.891	194	30.38	57	27.603	187	6.75	42
30	18.929	213	64.53	171	58.073	308	8.27	112	1.085	240	29.81	19	27.790	233	6.33	6
Mai 10	19.142	246	62.82	187	58.381	360	7.15	67	1.325	280	29.62	21	28.023	273	6.27	32
20	19.388	276	60.95	201	58.741	404	6.48	18	1.605	314	29.83	61	28.296	305	6.59	69
30	19.664	298	58.94	209	59.145	436	6.30	31	1.919	338	30.44	98	28.601	330	7.28	106
Juni 9	19.962	313	56.85	212	59.581	455	6.61	79	2.257	354	31.42	134	28.931	347	8.34	140
19	20.275	321	54.73	211	60.036	463	7.40	126	2.611	361	32.76	168	29.278	354	9.74	171
29	20.596	319	52.62	203	60.499	458	8.66	169	2.972	359	34.44	195	29.632	351	11.45	196
Juli 9	20.915	309	50.59	190	60.957	442	10.35	208	3.331	346	36.39	219	29.983	341	13.41	218
19	21.224	293	48.69	174	61.399	416	12.43	242	3.677	327	38.58	238	30.324	322	15.59	233
29	21.517	270	46.95	152	61.815	381	14.85	271	4.004	301	40.96	249	30.646	297	17.92	243
Aug. 8	21.787	241	45.43	128	62.196	338	17.56	293	4.305	268	43.45	257	30.943	265	20.35	248
18	22.028	207	44.15	102	62.534	290	20.49	309	4.573	232	46.02	258	31.208	230	22.83	247
28	22.235	172	43.13	74	62.824	239	23.58	319	4.805	192	48.60	255	31.438	192	25.30	243
Sept. 7	22.407	134	42.39	47	63.063	185	26.77	323	4.997	152	51.15	247	31.630	153	27.73	232
17	22.541	98	41.92	20	63.248	130	30.00	320	5.149	112	53.62	234	31.783	113	30.05	220
27	22.639	62	41.72	3	63.378	76	33.20	311	5.261	72	55.96	217	31.896	75	32.25	202
Okt. 6	28 22.701	29	41.75	25	30 63.454	24	36.31	297	30 5.333	34	58.13	199	1 31.971	38	34.27	182
16	22.730	2	42.00	42	63.478	26	39.28	275	5.367	1	60.12	175	32.009	5	36.09	160
26	22.728	27	42.42	56	63.452	73	42.03	249	5.366	32	61.87	150	32.014	26	37.69	134
Nov. 5	22.701	50	42.98	66	63.379	117	44.52	217	5.334	60	63.37	122	31.988	54	39.03	108
15	22.651	67	43.64	72	63.262	156	46.69	179	5.274	86	64.59	90	31.934	78	40.11	79
25	22.584	83	44.36	75	63.106	191	48.48	136	5.188	107	65.49	59	31.856	99	40.90	49
Dez. 5	22.501	93	45.11	73	62.915	220	49.84	90	5.081	125	66.08	25	31.757	117	41.39	18
15	22.408	101	45.84	70	62.695	242	50.74	42	4.956	139	66.33	9	31.640	130	41.57	14
25	22.307	104	46.54	64	62.453	257	51.16	9	4.817	148	66.24	42	31.510	140	41.43	45
35	22.203		47.18		62.196		51.07		4.669		65.82		31.370		40.98	
Mittl. Ort	19.979		59.57		60.284		19.96		2.573		40.32		29.225		16.44	
sec δ, tg δ	1.003		−0.074		1.685		+1.357		1.198		+0.660		1.161		+0.591	
a, *a′*	+3.1		+19.9		+3.3		+19.8		+3.2		+19.8		+3.2		+19.8	
b, *b′*	0.00		− 0.12		+0.09		− 0.15		+0.04		− 0.15		+0.04		− 0.16	

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Tag	21) α Cassiopeiae				22) β Ceti				23) o Cassiopeiae				24) 21 Cassiopeiae			
	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1947	$0^h\ 37^m$		+56° 14′		$0^h\ 40^m$		−18° 16′		$0^h\ 41^m$		+47° 59′		$0^h\ 42^m$		+74° 41′	
	s		″		s		″		s		″		s		″	
Jan. 0	27.782	292	59.89	33	54.941	119	51.25	47	44.439	222	49.48	41	4.79	74	69.32	9
10	27.490	291	59.56	84	54.822	118	51.72	21	44.217	224	49.07	86	4.05	73	69.41	52
20	27.199	279	58.72	131	54.704	112	51.93	4	43.993	216	48.21	125	3.32	71	68.89	111
30	26.920	256	57.41	172	54.592	101	51.89	31	43.777	198	46.96	161	2.61	65	67.78	166
Febr. 9	26.664	219	55.69	207	54.491	83	51.58	59	43.579	171	45.35	189	1.96	57	66.12	212
19	26.445	170	53.62	232	54.408	61	50.99	85	43.408	133	43.46	209	1.39	46	64.00	250
März 1	26.275	112	51.30	246	54.347	34	50.14	112	43.275	86	41.37	220	0.93	32	61.50	277
11	26.163	43	48.84	251	54.313	0	49.02	138	43.189	32	39.17	221	0.61	18	58.73	291
21	26.120	29	46.33	245	54.313	38	47.64	162	43.157	28	36.96	212	0.43	2	55.82	294
31	26.149	105	43.88	227	54.351	78	46.02	184	43.185	92	34.84	193	0.41	14	52.88	285
April 10	26.254	181	41.61	202	54.429	121	44.18	205	43.277	156	32.91	166	0.55	29	50.03	264
20	26.435	253	39.59	167	54.550	163	42.13	221	43.433	217	31.25	133	0.84	44	47.39	234
30	26.688	319	37.92	125	54.713	204	39.92	233	43.650	273	29.92	93	1.28	57	45.05	195
Mai 10	27.007	376	36.67	80	54.917	241	37.59	240	43.923	322	28.99	50	1.85	68	43.10	149
20	27.383	422	35.87	32	55.158	273	35.19	244	44.245	364	28.49	4	2.53	78	41.61	99
30	27.805	457	35.55	19	55.431	300	32.75	240	44.609	395	28.45	42	3.31	84	40.62	45
Juni 9	28.262	479	35.74	68	55.731	318	30.35	231	45.004	414	28.87	88	4.15	88	40.17	11
19	28.741	487	36.42	115	56.049	328	28.04	216	45.418	424	29.75	131	5.03	91	40.28	65
29	29.228	483	37.57	161	56.377	331	25.88	195	45.842	421	31.06	170	5.94	89	40.93	119
Juli 9	29.711	467	39.18	202	56.708	324	23.93	170	46.263	409	32.76	205	6.83	87	42.12	168
19	30.178	440	41.20	237	57.032	310	22.23	141	46.672	387	34.81	236	7.70	83	43.80	215
29	30.618	404	43.57	268	57.342	289	20.82	108	47.059	356	37.17	261	8.53	75	45.95	257
Aug. 8	31.022	360	46.25	293	57.631	261	19.74	73	47.415	319	39.78	280	9.28	67	48.52	292
18	31.382	310	49.18	312	57.892	227	19.01	38	47.734	278	42.58	293	9.95	59	51.44	322
28	31.692	257	52.30	323	58.119	192	18.63	3	48.012	232	45.51	301	10.54	47	54.66	346
Sept. 7	31.949	200	55.53	329	58.311	153	18.60	31	48.244	183	48.52	302	11.01	36	58.12	362
17	32.149	142	58.82	328	58.464	114	18.91	61	48.427	135	51.54	298	11.37	25	61.74	371
27	[1] 32.291	84	62.10	321	[2] 58.578	75	19.52	86	[2] 48.562	88	54.52	287	[2] 11.62	13	65.45	372
Okt. 6	32.375	28	65.31	308	58.653	39	20.38	106	48.650	41	57.39	273	11.75	1	69.17	367
16	32.403	26	68.39	288	58.692	7	21.44	121	48.691	4	60.12	252	11.76	12	72.84	353
26	32.377	77	71.27	261	58.699	24	22.65	129	48.687	45	62.64	226	11.64	23	76.37	331
Nov. 5	32.300	124	73.88	230	58.675	49	23.94	130	48.642	83	64.90	196	11.41	33	79.68	301
15	32.176	168	76.18	193	58.626	70	25.24	126	48.559	119	66.86	161	11.08	45	82.69	263
25	32.008	206	78.11	149	58.556	88	26.50	115	48.440	150	68.47	122	10.63	54	85.32	218
Dez. 5	31.802	239	79.60	103	58.468	101	27.65	100	48.290	176	69.69	79	10.09	61	87.50	166
15	31.563	264	80.63	52	58.367	110	28.65	82	48.114	198	70.48	34	9.48	68	89.16	110
25	31.299	281	81.15	1	58.257	116	29.47	60	47.916	212	70.82	11	8.80	72	90.26	49
35	31.018		81.16		58.141		30.07		47.704		70.71		8.08		90.75	
Mittl. Ort	29.079		49.40		55.784		37.89		45.617		40.88		6.51		55.65	
sec δ, tg δ	1.800		+1.496		1.053		−0.330		1.494		+1.110		3.789		+3.655	
a, *a′*	+3.4		+19.8		+3.0		+19.7		+3.3		+19.7		+4.0		+19.7	
b, *b′*	+0.10		− 0.16		−0.02		− 0.18		+0.07		− 0.18		+0.24		− 0.18	

Tag	27) ζ Andromedae AR.		27) ζ Andromedae Dekl.		32) γ Cassiopeiae AR.		32) γ Cassiopeiae Dekl.		33) μ Andromedae AR.		33) μ Andromedae Dekl.		35) α Sculptoris AR.		35) α Sculptoris Dekl.	
1947	$0^h\ 44^m$		$+23°\ 58'$		$0^h\ 53^m$		$+60°\ 25'$		$0^h\ 53^m$		$+38°\ 12'$		$0^h\ 56^m$		$-29°\ 38'$	
Jan. 0	30.409	131	46.68	63	28.22	34	60.44	6	47.133	171	50.49	42	2.535	143	53.26	40
10	30.278	134	46.05	84	27.88	34	60.38	59	46.962	175	50.07	78	2.392	144	53.66	4
20	30.144	130	45.21	101	27.54	34	59.79	110	46.787	172	49.29	109	2.248	139	53.70	$\overline{32}$
30	30.014	119	44.20	114	27.20	31	58.69	156	46.615	161	48.20	137	2.109	128	53.38	69
Febr. 9	29.895	102	43.06	122	26.89	28	57.13	196	46.454	142	46.83	158	1.981	111	52.69	105
19	29.793	78	41.84	124	26.61	23	55.17	226	46.312	112	45.25	172	1.870	88	51.64	138
März 1	29.715	46	40.60	119	26.38	16	52.91	247	46.200	75	43.53	179	1.782	59	50.26	169
11	29.669	9	39.41	108	26.22	8	50.44	258	46.125	31	41.74	176	1.723	24	48.57	197
21	29.660	$\overline{34}$	38.33	91	26.14	0	47.86	256	46.094	$\overline{19}$	39.98	165	1.699	$\overline{16}$	46.60	223
31	29.694	79	37.42	68	26.14	8	45.30	244	46.113	72	38.33	146	1.715	59	44.37	244
April 10	29.773	126	36.74	40	26.22	16	42.86	223	46.185	128	36.87	121	1.774	104	41.93	261
20	29.899	172	36.34	9	26.38	25	40.63	192	46.313	182	35.66	89	1.878	151	39.32	274
30	30.071	215	36.25	$\overline{25}$	26.63	33	38.71	154	46.495	232	34.77	53	2.029	196	36.58	280
Mai 10	30.286	255	36.50	58	26.96	39	37.17	111	46.727	278	34.24	14	2.225	237	33.78	282
20	30.541	287	37.08	92	27.35	45	36.06	63	47.005	316	34.10	$\overline{26}$	2.462	274	30.96	276
30	30.828	313	38.00	124	27.80	50	35.43	13	47.321	345	34.36	67	2.736	304	28.20	265
Juni 9	31.141	330	39.24	152	28.30	52	35.30	$\overline{38}$	47.666	366	35.03	106	3.040	328	25.55	246
19	31.471	339	40.76	177	28.82	53	35.68	87	48.032	377	36.09	141	3.368	343	23.09	223
29	31.810	338	42.53	197	29.35	54	36.55	134	48.409	378	37.50	174	3.711	349	20.86	192
Juli 9	32.148	330	44.50	212	29.89	52	37.89	179	48.787	369	39.24	203	4.060	346	18.94	158
19	32.478	314	46.62	223	30.41	50	39.68	218	49.156	353	41.27	225	4.406	335	17.36	120
29	32.792	291	48.85	227	30.91	46	41.86	252	49.509	328	43.52	243	4.741	314	16.16	78
Aug. 8	33.083	261	51.12	227	31.37	42	44.38	282	49.837	297	45.95	256	5.055	288	15.38	36
18	33.344	229	53.39	221	31.79	37	47.20	305	50.134	263	48.51	263	5.343	255	15.02	$\overline{7}$
28	33.573	194	55.60	213	32.16	31	50.25	322	50.397	223	51.14	264	5.598	218	15.09	49
Sept. 7	33.767	156	57.73	199	32.47	25	53.47	332	50.620	182	53.78	261	5.816	176	15.58	87
17	33.923	119	59.72	184	32.72	19	56.79	336	50.802	141	56.39	253	5.992	134	16.45	120
27	34.042	83	61.56	165	32.91	12	60.15	334	50.943	101	58.92	241	6.126	92	17.65	148
Okt. 6	[3] 34.125	48	63.21	144	[5] 33.03	6	63.49	325	[4] 51.044	60	61.33	225	[6] 6.218	51	19.13	168
16	34.173	16	64.65	123	33.09	0	66.74	308	51.104	23	63.58	204	6.269	13	20.81	180
26	34.189	$\overline{13}$	65.88	100	33.09	6	69.82	286	51.127	$\overline{12}$	65.62	180	6.282	$\overline{22}$	22.61	184
Nov. 5	34.176	40	66.88	76	33.03	12	72.68	257	51.115	46	67.42	154	6.260	53	24.45	181
15	34.136	63	67.64	52	32.91	18	75.25	222	51.069	75	68.96	123	6.207	79	26.26	168
25	34.073	83	68.16	26	32.73	22	77.47	180	50.994	102	70.19	91	6.128	101	27.94	149
Dez. 5	33.990	101	68.42	1	32.51	26	79.27	133	50.892	126	71.10	55	6.027	118	29.43	124
15	33.889	114	68.43	$\overline{23}$	32.25	30	80.60	83	50.766	146	71.65	19	5.909	131	30.67	95
25	33.775	124	68.20	48	31.95	32	81.43	30	50.620	160	71.84	$\overline{19}$	5.778	140	31.62	60
35	33.651		67.72		31.63		81.73		50.460		71.65		5.638		32.22	
Mittl. Ort	31.421		45.24		29.43		48.87		48.164		44.42		3.198		36.60	
sec δ, tg δ	1.094		+0.445		2.026		+1.762		1.273		+0.787		1.151		−0.569	
a, *a′*	+3.2		+19.7		+3.6		+19.5		+3.3		+19.5		+2.9		+19.4	
b, *b′*	+0.03		− 0.19		+0.11		− 0.23		+0.05		− 0.23		−0.04		− 0.24	

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Tag	36) ε Piscium AR.		36) ε Piscium Dekl.		1031) υ Phoenicis AR.		1031) υ Phoenicis Dekl.		42) β Andromedae AR.		42) β Andromedae Dekl.		45) υ Piscium AR.		45) υ Piscium Dekl.	
1947	1h 0m		+7° 36′		1h 5m		−41° 45′		1h 6m		+35° 20′		1h 16m		+26° 59′	
	s		″		s		″		s		″		s		″	
Jan. 0	10.508	112	14.93	63	22.281	188	91.89	30	44.447	158	29.74	36	31.958	134	12.74	40
10	10.396	116	14.30	66	22.093	189	92.19	16	44.289	165	29.38	68	31.824	143	12.34	64
20	10.280	115	13.64	65	21.904	183	92.03	62	44.124	166	28.70	97	31.681	147	11.70	84
30	10.165	109	12.99	62	21.721	170	91.41	107	43.958	159	27.73	122	31.534	141	10.86	102
Febr. 9	10.056	96	12.37	55	21.551	150	90.34	149	43.799	142	26.51	142	31.393	129	9.84	114
19	9.960	76	11.82	46	21.401	124	88.85	188	43.657	117	25.09	155	31.264	108	8.70	121
März 1	9.884	51	11.36	32	21.277	91	86.97	223	43.540	83	23.54	162	31.156	79	7.49	121
11	9.833	18	11.04	14	21.186	51	84.74	253	43.457	41	21.92	159	31.077	43	6.28	117
21	9.815	20	10.90	7	21.135	6	82.21	279	43.416	6	20.33	150	31.034	1	5.11	104
31	9.835	60	10.97	30	21.129	43	79.42	299	43.422	57	18.83	132	31.033	45	4.07	86
April 10	9.895	104	11.27	55	21.172	94	76.43	313	43.479	110	17.51	108	31.078	95	3.21	62
20	9.999	147	11.82	81	21.266	146	73.30	321	43.589	164	16.43	79	31.173	144	2.59	35
30	10.146	189	12.63	108	21.412	198	70.09	322	43.753	214	15.64	45	31.317	192	2.24	4
Mai 10	10.335	227	13.71	132	21.610	246	66.87	316	43.967	260	15.19	8	31.509	235	2.20	29
20	10.562	259	15.03	154	21.856	289	63.71	304	44.227	299	15.11	29	31.744	273	2.49	62
30	10.821	287	16.57	173	22.145	326	60.67	284	44.526	330	15.40	67	32.017	304	3.11	94
Juni 9	11.108	306	18.30	188	22.471	355	57.83	257	44.856	352	16.07	104	32.321	327	4.05	124
19	11.414	318	20.18	197	22.826	376	55.26	224	45.208	366	17.11	137	32.648	340	5.29	151
29	11.732	321	22.15	203	23.202	385	53.02	187	45.574	369	18.48	167	32.988	347	6.80	174
Juli 9	12.053	316	24.18	203	23.587	386	51.15	143	45.943	363	20.15	194	33.335	343	8.54	193
19	12.369	304	26.21	197	23.973	376	49.72	96	46.306	350	22.09	215	33.678	332	10.47	207
29	12.673	285	28.18	187	24.349	357	48.76	47	46.656	328	24.24	230	34.010	314	12.54	216
Aug. 8	12.958	261	30.05	173	24.706	329	48.29	3	46.984	301	26.54	242	34.324	290	14.70	219
18	13.219	231	31.78	156	25.035	293	48.32	52	47.285	269	28.96	247	34.614	261	16.89	219
28	13.450	199	33.34	135	25.328	252	48.84	98	47.554	232	31.43	248	34.875	228	19.08	215
Sept. 7	13.649	166	34.69	113	25.580	206	49.82	139	47.786	194	33.91	244	35.103	193	21.23	205
17	13.815	130	35.82	90	25.786	157	51.21	176	47.980	155	36.35	236	35.296	157	23.28	192
27	13.945	96	36.72	68	25.943	107	52.97	204	48.135	116	38.71	224	35.453	121	25.20	178
Okt. 7	14.041	63	37.40	46	26.050	58	55.01	223	48.251	77	40.95	208	35.574	87	26.98	161
16	14.104	34	37.86	25	26.108	10	57.24	233	48.328	41	43.03	190	35.661	53	28.59	142
26	14.138	5	38.11	6	26.118	32	59.57	234	48.369	7	44.93	167	35.714	22	30.01	120
Nov. 5	14.143	20	38.17	9	26.086	72	61.91	223	48.376	26	46.60	142	35.736	8	31.21	99
15	14.123	43	38.08	24	26.014	105	64.14	204	48.350	56	48.02	115	35.728	37	32.20	76
25	14.080	62	37.84	36	25.909	134	66.18	176	48.294	84	49.17	85	35.691	62	32.96	51
Dez. 5	14.018	79	37.48	45	25.775	156	67.94	142	48.210	108	50.02	53	35.629	85	33.47	27
15	13.939	94	37.03	54	25.619	173	69.36	101	48.102	129	50.55	19	35.544	105	33.74	1
25	13.845	104	36.49	59	25.446	183	70.37	58	47.973	147	50.74	13	35.439	123	33.75	24
35	13.741		35.90		25.263		70.95		47.826		50.61		35.316		33.51	
Mittl. Ort	11.356		18.93		22.744		72.14		45.384		24.36		32.799		9.86	
sec δ, tg δ	1.009		+0.134		1.341		−0.893		1.226		+0.709		1.122		+0.509	
a, *a′*	+3.1		+19.4		+2.7		+19.2		+3.3		+19.2		+3.3		+18.9	
b, *b′*	+0.01		−0.26		−0.06		−0.28		+0.05		−0.29		+0.03		−0.33	

Tag	47) ϑ Ceti AR.		47) ϑ Ceti Dekl.		48) δ Cassiopeiae AR.		48) δ Cassiopeiae Dekl.		50) η Piscium AR.		50) η Piscium Dekl.		51) 40 Cassiopeiae AR.		51) 40 Cassiopeiae Dekl.	
1947	$1^h\ 21^m$		$-8°\ 27'$		$1^h\ 22^m$		$+59°\ 57'$		$1^h\ 28^m$		$+15°\ 4'$		$1^h\ 34^m$		$+72°\ 46'$	
	s		"		s		"		s		"		s		"	
Jan. 0	21.732	113	31.99	67	18.762	320	49.88	29	37.839	114	22.66	51	13.18	60	29.15	76
10	21.619	120	32.66	52	18.442	336	50.17	24	37.725	125	22.15	60	12.58	64	29.91	17
20	21.499	122	33.18	33	18.106	339	49.93	75	37.600	129	21.55	68	11.94	65	30.08	43
30	21.377	118	33.51	14	17.767	327	49.18	122	37.471	128	20.87	72	11.29	62	29.65	101
Febr. 9	21.259	109	33.65	7	17.440	300	47.96	165	37.343	119	20.15	74	10.67	59	28.64	152
19	21.150	92	33.58	30	17.140	258	46.31	200	37.224	103	19.41	71	10.08	51	27.12	198
März 1	21.058	68	33.28	52	16.882	201	44.31	226	37.121	78	18.70	64	9.57	41	25.14	235
11	20.990	39	32.76	76	16.681	132	42.05	243	37.043	46	18.06	53	9.16	30	22.79	261
21	20.951	3	32.00	101	16.549	54	39.62	248	36.997	10	17.53	36	8.86	17	20.18	276
31	20.948	36	30.99	125	16.495	30	37.14	242	36.987	33	17.17	17	8.69	3	17.42	279
April 10	20.984	78	29.74	148	16.525	116	34.72	228	37.020	79	17.00	7	8.66	11	14.63	271
20	21.062	122	28.26	170	16.641	201	32.44	203	37.099	124	17.07	33	8.77	26	11.92	253
30	21.184	165	26.56	189	16.842	281	30.41	170	37.223	168	17.40	59	9.03	38	9.39	225
Mai 10	21.349	205	24.67	204	17.123	354	28.71	132	37.391	211	17.99	87	9.41	51	7.14	189
20	21.554	241	22.63	215	17.477	416	27.39	89	37.602	248	18.86	112	9.92	62	5.25	146
30	21.795	271	20.48	222	17.893	467	26.50	42	37.850	279	19.98	136	10.54	70	3.79	100
Juni 9	22.066	294	18.26	223	18.360	504	26.08	6	38.129	302	21.34	157	11.24	76	2.79	50
19	22.360	310	16.03	220	18.864	528	26.14	54	38.431	318	22.91	174	12.00	82	2.29	2
29	22.670	318	13.83	209	19.392	537	26.68	100	38.749	326	24.65	186	12.82	83	2.31	54
Juli 9	22.988	318	11.74	194	19.929	534	27.68	144	39.075	326	26.51	194	13.65	84	2.85	104
19	23.306	310	9.80	173	20.463	519	29.12	186	39.401	317	28.45	197	14.49	82	3.89	151
29	23.616	295	8.07	150	20.982	492	30.98	221	39.718	302	30.42	194	15.31	79	5.40	196
Aug. 8	23.911	274	6.57	121	21.474	456	33.19	253	40.020	282	32.36	188	16.10	73	7.36	237
18	24.185	247	5.36	91	21.930	412	35.72	280	40.302	255	34.24	178	16.83	67	9.73	272
28	24.432	217	4.45	59	22.342	361	38.52	299	40.557	226	36.02	163	17.50	60	12.45	301
Sept. 7	24.649	185	3.86	28	22.703	305	41.51	314	40.783	195	37.65	146	18.10	51	15.46	326
17	24.834	150	3.58	3	23.008	247	44.65	322	40.978	161	39.11	128	18.61	41	18.72	342
27	24.984	115	3.61	30	23.255	187	47.87	324	41.139	128	40.39	109	19.02	32	22.14	354
Okt. 7	$_{12}$25.099	82	3.91	54	$_{12}$23.442	125	51.11	320	$_{14}$41.267	96	41.48	88	$_{15}$19.34	21	25.68	358
16	25.181	50	4.45	74	23.567	64	54.31	310	41.363	65	42.36	69	19.55	11	29.26	353
26	25.231	20	5.19	88	23.631	3	57.41	292	41.428	35	43.05	50	19.66	1	32.79	342
Nov. 5	25.251	7	6.07	98	23.634	58	60.33	269	41.463	7	43.55	31	19.65	11	36.21	323
15	25.244	32	7.05	102	23.576	114	63.02	238	41.470	19	43.86	15	19.54	22	39.44	296
25	25.212	54	8.07	101	23.462	169	65.40	202	41.451	44	44.01	1	19.32	32	42.40	260
Dez. 5	25.158	74	9.08	96	23.293	220	67.42	160	41.407	66	44.00	16	19.00	42	45.00	218
15	25.084	90	10.04	87	23.073	262	69.02	114	41.341	85	43.84	30	18.58	50	47.18	168
25	24.994	104	10.91	75	22.811	298	70.16	63	41.256	103	43.54	42	18.08	57	48.86	113
35	24.890		11.66		22.513		70.79		41.153		43.12		17.51		49.99	
Mittl. Ort	22.371		22.78		19.706		38.17		38.560		23.58		14.03		15.36	
sec δ, tg δ	1.011		−0.149		1.998		+1.729		1.036		+0.269		3.376		+3.225	
a, *a'*	+3.0		+18.8		+3.9		+18.8		+3.2		+18.6		+4.8		+18.4	
b, *b'*	−0.01		− 0.35		+0.11		− 0.35		+0.02		− 0.38		+0.20		− 0.40	

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Tag	52) 51 Andromedae AR.		Dekl.		54) α Eridani AR.		Dekl.		55) 43 Cassiopeiae AR.		Dekl.		57) φ Persei AR.		Dekl.	
1947	$1^h\ 34^m$		$+48°\ 21'$		$1^h\ 35^m$		$-57°\ 29'$		$1^h\ 38^m$		$+67°\ 46'$		$1^h\ 40^m$		$+50°\ 25'$	
	s		″		s		″		s		″		s		″	
Jan. 0	42.776	209	47.14	15	44.807	312	101.50	41	22.23	45	46.75	69	18.692	220	31.20	27
10	42.567	226	47.29	$\overline{28}$	44.495	319	101.91	$\overline{17}$	21.78	47	47.44	12	18.472	240	31.47	$\overline{19}$
20	42.341	234	47.01	69	44.176	317	101.74	72	21.31	49	47.56	$\overline{45}$	18.232	249	31.28	61
30	42.107	230	46.32	108	43.859	303	101.02	126	20.82	47	47.11	99	17.983	246	30.67	103
Febr. 9	41.877	215	45.24	142	43.556	279	99.76	177	20.35	44	46.12	149	17.737	231	29.64	138
19	41.662	188	43.82	170	43.277	247	97.99	222	19.91	39	44.63	191	17.506	205	28.26	168
März 1	41.474	149	42.12	189	43.030	204	95.77	263	19.52	32	42.72	226	17.301	165	26.58	191
11	41.325	101	40.23	200	42.826	154	93.14	298	19.20	23	40.46	250	17.136	114	24.67	204
21	41.224	44	38.23	202	42.672	95	90.16	326	18.97	13	37.96	263	17.022	56	22.63	208
31	41.180	$\overline{19}$	36.21	195	42.577	31	86.90	346	18.84	2	35.33	265	16.966	$\overline{9}$	20.55	203
April 10	41.199	85	34.26	179	42.546	$\overline{37}$	83.44	360	18.82	$\overline{10}$	32.68	257	16.975	78	18.52	188
20	41.284	150	32.47	155	42.583	108	79.84	367	18.92	20	30.11	238	17.053	146	16.64	167
30	41.434	214	30.92	125	42.691	178	76.17	365	19.12	31	27.73	210	17.199	213	14.97	137
Mai 10	41.648	272	29.67	89	42.869	246	72.52	355	19.43	41	25.63	175	17.412	275	13.60	102
20	41.920	324	28.78	50	43.115	308	68.97	337	19.84	50	23.88	133	17.687	328	12.58	64
30	42.244	366	28.28	9	43.423	364	65.60	313	20.34	57	22.55	87	18.015	374	11.94	22
Juni 9	42.610	398	28.19	$\overline{33}$	43.787	412	62.47	280	20.91	62	21.68	39	18.389	408	11.72	$\overline{20}$
19	43.008	420	28.52	75	44.199	449	59.67	241	21.53	65	21.29	$\overline{11}$	18.797	431	11.92	63
29	43.428	430	29.27	114	44.648	474	57.26	195	22.18	68	21.40	61	19.228	444	12.55	103
Juli 9	43.858	431	30.41	150	45.122	486	55.31	144	22.86	68	22.01	109	19.672	446	13.58	141
19	44.289	420	31.91	184	45.608	487	53.87	91	23.54	67	23.10	155	20.118	437	14.99	175
29	44.709	402	33.75	212	46.095	472	52.96	34	24.21	64	24.65	196	20.555	419	16.74	206
Aug. 8	45.111	376	35.87	235	46.567	446	52.62	$\overline{24}$	24.85	60	26.61	234	20.974	392	18.80	232
18	45.487	342	38.22	254	47.013	409	52.86	79	25.45	55	28.95	267	21.366	360	21.12	252
28	45.829	304	40.76	268	47.422	361	53.65	133	26.00	49	31.62	294	21.726	322	23.64	268
Sept. 7	46.133	263	43.44	275	47.783	303	54.98	181	26.49	43	34.56	316	22.048	280	26.32	278
17	46.396	219	46.19	279	48.086	240	56.79	222	26.92	35	37.72	332	22.328	234	29.10	282
27	46.615	175	48.98	276	48.326	172	59.01	254	27.27	27	41.04	340	22.562	189	31.92	283
Okt. 7	46.790	129	51.74	269	48.498	102	61.55	277	27.54	19	44.44	342	22.751	141	34.75	277
16*)	[16] 46.919	83	54.43	257	[16] 48.600	32	64.32	287	[16] 27.73	11	47.86	338	22.892	94	37.52	267
26	47.002	38	57.00	240	48.632	$\overline{35}$	67.19	287	27.84	3	51.24	326	[17] 22.986	47	40.19	251
Nov. 5	47.040	$\overline{6}$	59.40	218	48.597	99	70.06	275	27.87	$\overline{6}$	54.50	306	23.033	0	42.70	230
15	47.034	48	61.58	192	48.498	155	72.81	252	27.81	14	57.56	280	23.033	45	45.00	204
25	46.986	89	63.50	159	48.343	206	75.33	218	27.67	22	60.36	245	22.988	90	47.04	173
Dez. 5	46.897	127	65.09	125	48.137	247	77.51	176	27.45	30	62.81	204	22.898	130	48.77	137
15	46.770	161	66.34	85	47.890	279	79.27	128	27.15	36	64.85	156	22.768	167	50.14	98
25	46.609	190	67.19	43	47.611	302	80.55	73	26.79	41	66.41	104	22.601	200	51.12	55
35	46.419		67.62		47.309		81.28		26.38		67.45		22.401		51.67	
Mittl. Ort	43.581		37.94		44.585		79.52		23.03		33.65		19.461		21.49	
sec δ, tg δ	1.505		+1.125		1.861		−1.570		2.644		+2.447		1.570		+1.210	
a, *a′*	+3.7		+18.4		+2.2		+18.3		+4.4		+18.2		+3.8		+18.2	
b, *b′*	+0.07		− 0.40		−0.10		− 0.41		+0.15		− 0.42		+0.07		− 0.42	

*) Bei Stern 57) lies Okt. 17.

Tag	59) τ Ceti[1] AR.		Dekl.		60) o Piscium AR.		Dekl.		61) ε Sculptoris AR.		Dekl.		62) ζ Ceti AR.		Dekl.	
1947	$1^h\ 41^m$		−16° 12′		$1^h\ 42^m$		+8° 53′		$1^h\ 43^m$		−25° 18′		$1^h\ 48^m$		−10° 35′	
Jan. 0	35.826	123	68.76	71	34.850	107	27.57	55	9.462	135	74.45	76	50.103	111	55.31	75
10	35.703	133	69.47	46	34.743	120	27.02	57	9.327	145	75.21	44	49.992	124	56.06	58
20	35.570	138	69.93	20	34.623	127	26.45	58	9.182	150	75.65	9	49.868	130	56.64	36
30	35.432	136	70.13	$\overline{8}$	34.496	128	25.87	56	9.032	148	75.74	$\overline{27}$	49.738	132	57.00	13
Febr. 9	35.296	128	70.05	37	34.368	122	25.31	51	8.884	140	75.47	63	49.606	126	57.13	$\overline{9}$
19	35.168	113	69.68	65	34.246	108	24.80	44	8.744	124	74.84	97	49.480	113	57.04	34
März 1	35.055	92	69.03	92	34.138	86	24.36	32	8.620	102	73.87	129	49.367	93	56.70	60
11	34.963	62	68.11	121	34.052	57	24.04	18	8.518	72	72.58	161	49.274	65	56.10	84
21	34.901	28	66.90	146	33.995	21	23.86	0	8.446	36	70.97	190	49.209	31	55.26	110
31	34.873	$\overline{12}$	65.44	172	33.974	$\overline{19}$	23.86	20	8.410	$\overline{6}$	69.07	215	49.178	$\overline{7}$	54.16	134
April 10	34.885	56	63.72	195	33.993	62	24.06	43	8.416	50	66.92	238	49.185	50	52.82	158
20	34.941	100	61.77	214	34.055	108	24.49	67	8.466	96	64.54	255	49.235	94	51.24	180
30	35.041	144	59.63	230	34.163	152	25.16	92	8.562	143	61.99	269	49.329	139	49.44	198
Mai 10	35.185	187	57.33	242	34.315	194	26.08	115	8.705	188	59.30	277	49.468	181	47.46	213
20	35.372	226	54.91	249	34.509	232	27.23	138	8.893	229	56.53	278	49.649	220	45.33	225
30	35.598	259	52.42	250	34.741	265	28.61	157	9.122	265	53.75	274	49.869	253	43.08	230
Juni 9	35.857	285	49.92	246	35.006	290	30.18	172	9.387	294	51.01	262	50.122	281	40.78	231
19	36.142	305	47.46	235	35.296	308	31.90	184	9.681	315	48.39	245	50.403	301	38.47	226
29	36.447	316	45.11	218	35.604	318	33.74	191	9.996	329	45.94	222	50.704	313	36.21	215
Juli 9	36.763	320	42.93	197	35.922	320	35.65	193	10.325	335	43.72	192	51.017	317	34.06	199
19	37.083	315	40.96	169	36.242	315	37.58	191	10.660	332	41.80	157	51.334	315	32.07	178
29	37.398	303	39.27	138	36.557	302	39.49	182	10.992	320	40.23	119	51.649	304	30.29	151
Aug. 8	37.701	284	37.89	103	36.859	284	41.31	170	11.312	303	39.04	77	51.953	287	28.78	121
18	37.985	260	36.86	66	37.143	261	43.01	154	11.615	278	38.27	34	52.240	264	27.57	89
28	38.245	231	36.20	29	37.404	233	44.55	136	11.893	248	37.93	$\overline{8}$	52.504	238	26.68	54
Sept. 7	38.476	199	35.91	$\overline{8}$	37.637	203	45.91	114	12.141	214	38.01	50	52.742	207	26.14	21
17	38.675	164	35.99	42	37.840	172	47.05	93	12.355	178	38.51	88	52.949	176	25.93	$\overline{11}$
27	38.839	130	36.41	73	38.012	140	47.98	70	12.533	141	39.39	121	53.125	142	26.04	42
Okt. 7	38.969	95	37.14	99	38.152	108	48.68	50	12.674	103	40.60	148	53.267	109	26.46	68
17	39.064	61	38.13	119	38.260	77	49.18	29	12.777	65	42.08	169	53.376	77	27.14	89
	[17]				[18]				[18]				[19]			
26	39.125	29	39.32	133	38.337	48	49.47	11	12.842	31	43.77	180	53.453	46	28.03	106
Nov. 5	39.154	$\overline{1}$	40.65	140	38.385	20	49.58	$\overline{5}$	12.873	$\overline{2}$	45.57	184	53.499	17	29.09	115
15	39.153	29	42.05	140	38.405	$\overline{6}$	49.53	18	12.871	33	47.41	179	53.516	$\overline{11}$	30.24	119
25	39.124	54	43.45	133	38.399	32	49.35	30	12.838	61	49.20	168	53.505	36	31.43	118
Dez. 5	39.070	76	44.78	122	38.367	55	49.05	39	12.777	85	50.88	149	53.469	61	32.61	111
15	38.994	96	46.00	106	38.312	76	48.66	46	12.692	106	52.37	125	53.408	81	33.72	100
25	38.898	113	47.06	84	38.236	95	48.20	51	12.586	125	53.62	96	53.327	100	34.72	86
35	38.785		47.90		38.141		47.69		12.461		54.58		53.227		35.58	
Mittl. Ort	36.301		57.36		35.465		30.37		9.821		60.40		50.561		46.08	
sec δ, tg δ	1.041		−0.291		1.012		+0.156		1.106		−0.472		1.017		−0.187	
a, a′	+2.9		+18.1		+3.2		+18.1		+2.8		+18.0		+3.0		+17.8	
b, b′	−0.02		−0.43		+0.01		−0.43		−0.03		−0.44		−0.01		−0.46	

[1]) Die jährliche Parallaxe (0.″298) ist bereits berücksichtigt.

Scheinbare Sternörter 1947

Tag	64) α Trianguli AR.		64) α Trianguli Dekl.		63) ε Cassiopeiae AR.		63) ε Cassiopeiae Dekl.		65) ξ Piscium AR.		65) ξ Piscium Dekl.		67) ψ Phoenicis AR.		67) ψ Phoenicis Dekl.	
1947	$1^h\ 50^m$		+29° 19′		$1^h\ 50^m$		+63° 24′		$1^h\ 50^m$		+2° 55′		$1^h\ 51^m$		−46° 33′	
	s		″		s		″		s		″		s		″	
Jan. 0	2.520	130	21.43	15	32.70	35	49.01	72	47.981	105	31.46	62	31.420	218	60.92	73
10	2.390	147	21.28	41	32.35	37	49.73	18	47.876	118	30.84	58	31.202	229	61.65	23
20	2.243	157	20.87	63	31.98	40	49.91	35	47.758	126	30.26	52	30.973	234	61.88	28
30	2.086	159	20.24	83	31.58	39	49.56	86	47.632	129	29.74	43	30.739	230	61.60	78
Febr. 9	1.927	153	19.41	99	31.19	38	48.70	134	47.503	123	29.31	32	30.509	217	60.82	127
19	1.774	137	18.42	111	30.81	33	47.36	176	47.380	112	28.99	20	30.292	196	59.55	172
März 1	1.637	111	17.31	118	30.48	28	45.60	209	47.268	91	28.79	4	30.096	166	57.83	213
11	1.526	78	16.13	117	30.20	20	43.51	233	47.177	63	28.75	14	29.930	128	55.70	250
21	1.448	37	14.96	111	30.00	12	41.18	246	47.114	30	28.89	33	29.802	84	53.20	281
31	1.411	9	13.85	98	29.88	4	38.72	250	47.084	10	29.22	55	29.718	33	50.39	306
April 10	1.420	60	12.87	80	29.84	7	36.22	243	47.094	52	29.77	79	29.685	22	47.33	326
20	1.480	112	12.07	57	29.91	16	33.79	225	47.146	97	30.56	101	29.707	80	44.07	338
30	1.592	162	11.50	29	30.07	25	31.54	199	47.243	142	31.57	124	29.787	138	40.69	344
Mai 10	1.754	209	11.21	0	30.32	35	29.55	167	47.385	184	32.81	146	29.925	194	37.25	343
20	1.963	253	11.21	32	30.67	41	27.88	127	47.569	222	34.27	164	30.119	247	33.82	333
30	2.216	289	11.53	63	31.08	48	26.61	84	47.791	255	35.91	179	30.366	294	30.49	316
Juni 9	2.505	318	12.16	92	31.56	53	25.77	38	48.046	282	37.70	190	30.660	334	27.33	291
19	2.823	337	13.08	121	32.09	57	25.39	10	48.328	301	39.60	197	30.994	365	24.42	260
29	3.160	350	14.29	146	32.66	59	25.49	57	48.629	313	41.57	199	31.359	388	21.82	221
Juli 9	3.510	352	15.75	166	33.25	59	26.06	102	48.942	316	43.56	195	31.747	399	19.61	177
19	3.862	346	17.41	184	33.84	59	27.08	145	49.258	313	45.51	186	32.146	401	17.84	129
29	4.208	335	19.25	196	34.43	57	28.53	186	49.571	302	47.37	173	32.547	392	16.55	77
Aug. 8	4.543	315	21.21	203	35.00	53	30.39	221	49.873	285	49.10	155	32.939	374	15.78	22
18	4.858	290	23.24	206	35.53	50	32.60	253	50.158	263	50.65	134	33.313	345	15.56	32
28	5.148	262	25.30	206	36.03	45	35.13	278	50.421	237	51.99	110	33.658	310	15.88	84
Sept. 7	5.410	230	27.36	200	36.48	39	37.91	299	50.658	208	53.09	86	33.968	268	16.72	134
17	5.640	197	29.36	192	36.87	33	40.90	313	50.866	177	53.95	60	34.236	220	18.06	177
27	5.837	163	31.28	181	37.20	27	44.03	323	51.043	146	54.55	35	34.456	170	19.83	213
Okt. 7	6.000	128	33.09	168	37.47	20	47.26	324	51.189	114	54.90	12	34.626	118	21.96	242
17	6.128	95	34.77	151	37.67	13	50.50	321	51.303	84	55.02	9	34.744	65	24.38	259
	19				20				20				20			
26	6.223	61	36.28	134	37.80	7	53.71	310	51.387	54	54.93	26	34.809	14	26.97	265
Nov. 5	6.284	28	37.62	115	37.87	1	56.81	292	51.441	26	54.67	41	34.823	33	29.62	262
15	6.312	3	38.77	95	37.86	8	59.73	267	51.467	1	54.26	51	34.790	78	32.24	247
25	6.309	34	39.72	73	37.78	15	62.40	236	51.466	27	53.75	59	34.712	119	34.71	223
Dez. 5	6.275	63	40.45	49	37.63	21	64.76	198	51.439	51	53.16	62	34.593	154	36.94	189
15	6.212	91	40.94	26	37.42	26	66.74	154	51.388	72	52.54	64	34.439	182	38.83	149
25	6.121	114	41.20	0	37.16	32	68.28	105	51.316	92	51.90	64	34.257	206	40.32	103
35	6.007		41.20		36.84		69.33		51.224		51.26		34.051		41.35	
Mittl. Ort	3.176		17.45		33.38		36.64		48.518		36.13		31.361		41.69	
sec δ, tg δ	1.147		+0.562		2.234		+1.998		1.001		+0.051		1.454		−1.056	
a, a'	+3.4		+17.8		+4.3		+17.8		+3.1		+17.7		+2.4		+17.7	
b, b'	+0.03		− 0.46		+0.12		− 0.46		0.00		− 0.46		−0.06		− 0.47	

Tag		66) β Arietis AR.		66) β Arietis Dekl.		68) χ Eridani AR.		68) χ Eridani Dekl.	
1947		$1^h\ 51^m$		$+20°\ 32'$		$1^h\ 53^m$		$-51°\ 51'$	
		s		"		s		"	
Jan.	0	41.778	115	60.46	33	54.051	254	99.58	70
	10	41.663	131	60.13	48	53.797	267	100.28	16
	20	41.532	140	59.65	61	53.530	271	100.44	38
	30	41.392	142	59.04	72	53.259	266	100.06	92
Febr.	9	41.250	137	58.32	80	52.993	251	99.14	141
	19	41.113	123	57.52	83	52.742	226	97.73	188
März	1	40.990	102	56.69	82	52.516	194	95.85	231
	11	40.888	70	55.87	75	52.322	152	93.54	268
	21	40.818	34	55.12	65	52.170	103	90.86	299
	31	40.784	10	54.47	49	52.067	48	87.87	325
April	10	40.794	57	53.98	28	52.019	13	84.62	343
	20	40.851	104	53.70	5	52.032	76	81.19	354
	30	40.955	152	53.65	21	52.108	140	77.65	358
Mai	10	41.107	198	53.86	49	52.248	201	74.07	354
	20	41.305	237	54.35	76	52.449	259	70.53	343
	30	41.542	272	55.11	102	52.708	312	67.10	323
Juni	9	41.814	300	56.13	126	53.020	357	63.87	296
	19	42.114	319	57.39	147	53.377	393	60.91	261
	29	42.433	331	58.86	165	53.770	418	58.30	220
Juli	9	42.764	333	60.51	178	54.188	433	56.10	174
	19	43.097	330	62.29	187	54.621	437	54.36	123
	29	43.427	318	64.16	190	55.058	428	53.13	68
Aug.	8	43.745	299	66.06	189	55.486	409	52.45	11
	18	44.044	277	67.95	185	55.895	380	52.34	45
	28	44.321	250	69.80	176	56.275	342	52.79	98
Sept.	7	44.571	219	71.56	164	56.617	295	53.77	149
	17	44.790	189	73.20	150	56.912	243	55.26	194
	27	44.979	156	74.70	134	57.155	186	57.20	231
Okt.	7	45.135	124	76.04	117	57.341	127	59.51	257
	17	45.259	92	77.21	100	57.468	68	62.08	274
	26	20 45.351	61	78.21	81	10 57.536	10	64.82	281
Nov.	5	45.412	30	79.02	63	57.546	45	67.63	274
	15	45.442	2	79.65	46	57.501	97	70.37	257
	25	45.444	26	80.11	29	57.404	142	72.94	230
Dez.	5	45.418	53	80.40	11	57.262	183	75.24	194
	15	45.365	78	80.51	6	57.079	215	77.18	151
	25	45.287	100	80.45	23	56.864	242	78.69	101
	35	45.187		80.22		56.622		79.70	
Mittl. Ort		42.394		59.23		53.817		79.39	
sec δ, tg δ		1.068		+0.375		1.620		−1.274	
a, *a′*		+3.3		+17.7		+2.3		+17.6	
b, *b′*		+0.02		− 0.47		−0.07		− 0.48	

Tag		72) α Hydri AR.		72) α Hydri Dekl.		71) υ Ceti AR.		71) υ Ceti Dekl.	
1947		$1^h\ 57^m$		$-61°\ 49'$		$1^h\ 57^m$		$-21°\ 19'$	
		s		"		s		"	
Jan.	0	6.73	37	59.29	61	30.116	125	74.20	86
	10	6.36	39	59.90	3	29.991	139	75.06	56
	20	5.97	39	59.93	55	29.852	146	75.62	24
	30	5.58	38	59.38	112	29.706	147	75.86	9
Febr.	9	5.20	36	58.26	165	29.559	142	75.77	41
	19	4.84	32	56.61	214	29.417	130	75.36	74
März	1	4.52	28	54.47	257	29.287	109	74.62	106
	11	4.24	23	51.90	295	29.178	82	73.56	137
	21	4.01	16	48.95	325	29.096	47	72.19	165
	31	3.85	10	45.70	349	29.049	8	70.54	192
April	10	3.75	2	42.21	366	29.041	36	68.62	215
	20	3.73	7	38.55	374	29.077	82	66.47	234
	30	3.80	14	34.81	374	29.159	128	64.13	251
Mai	10	3.94	22	31.07	367	29.287	172	61.62	262
	20	4.16	29	27.40	351	29.459	214	59.00	266
	30	4.45	37	23.89	327	29.673	250	56.34	266
Juni	9	4.82	42	20.62	296	29.923	281	53.68	259
	19	5.24	47	17.66	258	30.204	303	51.09	246
	29	5.71	50	15.08	212	30.507	319	48.63	227
Juli	9	6.21	53	12.96	161	30.826	326	46.36	200
	19	6.74	54	11.35	106	31.152	326	44.36	170
	29	7.28	53	10.29	49	31.478	316	42.66	134
Aug.	8	7.81	51	9.80	11	31.794	301	41.32	96
	18	8.32	47	9.91	70	32.095	280	40.36	55
	28	8.79	43	10.61	125	32.375	252	39.81	14
Sept.	7	9.22	36	11.86	176	32.627	222	39.67	27
	17	9.58	30	13.62	222	32.849	188	39.94	65
	27	9.88	23	15.84	258	33.037	153	40.59	99
Okt.	7	10.11	14	18.42	284	33.190	117	41.58	127
	17	10.25	7	21.26	299	33.307	83	42.85	150
	26	21 10.32	1	24.25	301	21 33.390	48	44.35	164
Nov.	5	10.31	9	27.26	293	33.438	16	45.99	171
	15	10.22	16	30.19	272	33.454	15	47.70	170
	25	10.06	22	32.91	239	33.439	43	49.40	162
Dez.	5	9.84	28	35.30	199	33.396	69	51.02	148
	15	9.56	33	37.29	150	33.327	92	52.50	127
	25	9.23	35	38.79	96	33.235	113	53.77	102
	35	8.88		39.75		33.122		54.79	
Mittl. Ort		6.01		37.63		30.422		61.85	
sec δ, tg δ		2.118		−1.867		1.074		−0.391	
a, *a′*		+1.9		+17.5		+2.8		+17.5	
b, *b′*		−0.11		− 0.49		−0.02		− 0.49	

Scheinbare Sternörter 1947

Tag	70) 50 Cassiopeiae				73) γ Andromedae *pr*				74) α Arietis				75) β Trianguli			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$1^h\ 58^m$		$+72°\ 9'$		$2^h\ 0^m$		$+42°\ 4'$		$2^h\ 4^m$		$+23°\ 12'$		$2^h\ 6^m$		$+34°\ 44'$	
	s		″		s		″		s		″		s		″	
Jan. 0	51.22	55	72.17	106	37.516	165	42.89	24	10.212	115	48.18	22	22.289	137	21.08	9
10	50.67	59	73.23	48	37.351	186	43.13	12	10.097	132	47.96	39	22.152	158	21.17	20
20	50.08	62	73.71	10	37.165	201	43.01	47	9.965	145	47.57	55	21.994	172	20.97	48
30	49.46	62	73.61	68	36.964	205	42.54	81	9.820	150	47.02	69	21.822	178	20.49	74
Febr. 9	48.84	59	72.93	122	36.759	198	41.73	110	9.670	146	46.33	78	21.644	173	19.75	96
19	48.25	54	71.71	170	36.561	180	40.63	135	9.524	135	45.55	86	21.471	160	18.79	115
März 1	47.71	45	70.01	211	36.381	151	39.28	154	9.389	113	44.69	88	21.311	136	17.64	127
11	47.26	35	67.90	242	36.230	112	37.74	163	9.276	84	43.81	85	21.175	101	16.37	133
21	46.91	23	65.48	263	36.118	64	36.11	167	9.192	46	42.96	76	21.074	59	15.04	132
31	46.68	9	62.85	272	36.054	10	34.44	162	9.146	3	42.20	63	21.015	10	13.72	124
April 10	46.59	4	60.13	270	36.044	49	32.82	149	9.143	44	41.57	45	21.005	43	12.48	110
20	46.63	18	57.43	257	36.093	110	31.33	129	9.187	94	41.12	24	21.048	98	11.38	90
30	46.81	31	54.86	235	36.203	169	30.04	103	9.281	142	40.88	2	21.146	152	10.48	65
Mai 10	47.12	44	52.51	205	36.372	225	29.01	73	9.423	189	40.90	30	21.298	204	9.83	36
20	47.56	54	50.46	167	36.597	276	28.28	38	9.612	232	41.20	56	21.502	250	9.47	5
30	48.10	65	48.79	124	36.873	318	27.90	3	9.844	269	41.76	83	21.752	291	9.42	27
Juni 9	48.75	72	47.55	77	37.191	352	27.87	34	10.113	297	42.59	109	22.043	324	9.69	60
19	49.47	77	46.78	28	37.543	378	28.21	70	10.410	320	43.68	132	22.367	347	10.29	91
29	50.24	81	46.50	22	37.921	393	28.91	104	10.730	333	45.00	151	22.714	363	11.20	119
Juli 9	51.05	82	46.72	72	38.314	398	29.95	135	11.063	338	46.51	166	23.077	368	12.39	144
19	51.87	82	47.44	120	38.712	394	31.30	164	11.401	336	48.17	178	23.445	366	13.83	167
29	52.69	80	48.64	165	39.106	383	32.94	188	11.737	326	49.95	185	23.811	356	15.50	184
Aug. 8	53.49	76	50.29	206	39.489	363	34.82	207	12.063	310	51.80	187	24.167	339	17.34	198
18	54.25	71	52.35	243	39.852	337	36.89	223	12.373	289	53.67	185	24.506	316	19.32	207
28	54.96	64	54.78	276	40.189	307	39.12	233	12.662	263	55.52	179	24.822	288	21.39	211
Sept. 7	55.60	57	57.54	303	40.496	272	41.45	240	12.925	234	57.31	170	25.110	258	23.50	212
17	56.17	49	60.57	324	40.768	236	43.85	240	13.159	204	59.01	159	25.368	225	25.62	208
27	56.66	39	63.81	339	41.004	198	46.25	238	13.363	172	60.60	144	25.593	190	27.70	202
Okt. 7	57.05	30	67.20	347	41.202	158	48.63	232	13.535	140	62.04	129	25.783	155	29.72	193
17	57.35	19	70.67	348	41.360	118	50.95	222	13.675	107	63.33	113	25.938	119	31.65	180
26	57.54	9	74.15	342	41.478	79	53.17	207	13.782	77	64.46	97	26.057	83	33.45	164
Nov. 5	57.63	2	77.57	328	41.557	38	55.24	189	13.859	45	65.43	79	26.140	48	35.09	148
15	57.61	13	80.85	306	41.595	1	57.13	167	13.904	13	66.22	61	26.188	13	36.57	128
25	57.48	24	83.91	276	41.594	40	58.80	142	13.917	16	66.83	44	26.201	23	37.85	106
Dez. 5	57.24	33	86.67	237	41.554	78	60.22	114	13.901	45	67.27	26	26.178	56	38.91	82
15	56.91	43	89.04	193	41.476	112	61.36	81	13.856	72	67.53	8	26.122	88	39.73	55
25	56.48	50	90.97	141	41.364	144	62.17	47	13.784	97	67.61	10	26.034	118	40.28	28
35	55.98		92.38		41.220		62.64		13.687		67.51		25.916		40.56	
Mittl. Ort	51.72		58.53		38.136		35.22		10.769		45.96		22.864		15.40	
sec δ, tg δ	3.265		+3.108		1.347		+0.903		1.088		+0.429		1.217		+0.693	
a, *a′*	+5.1		+17.4		+3.7		+17.3		+3.4		+17.2		+3.6		+17.1	
b, *b′*	+0.18		— 0.50		+0.05		— 0.50		+0.02		— 0.52		+0.04		— 0.52	

Tag	76) 55 Cassiopeiae AR.		76) 55 Cassiopeiae Dekl.		78) μ Fornacis AR.		78) μ Fornacis Dekl.	
1947	2h 10m		16′+66°		2h 10m		−30° 57′	
	s		″		s		″	
Jan. 0	17.12	38	51.40	104	34.347	146	92.49	98
10	16.74	43	52.44	49	34.201	162	93.47	59
20	16.31	45	52.93	5	34.039	172	94.06	19
30	15.86	45	52.88	58	33.867	174	94.25	23
Febr. 9	15.41	44	52.30	110	33.693	171	94.02	63
19	14.97	40	51.20	156	33.522	158	93.39	102
März 1	14.57	34	49.64	194	33.364	137	92.37	140
11	14.23	28	47.70	224	33.227	109	90.97	175
21	13.95	18	45.46	244	33.118	74	89.22	207
31	13.77	8	43.02	252	33.044	32	87.15	236
April 10	13.69	2	40.50	252	33.012	13	84.79	259
20	13.71	13	37.98	240	33.025	62	82.20	278
30	13.84	23	35.58	219	33.087	112	79.42	292
Mai 10	14.07	33	33.39	190	33.199	160	76.50	300
20	14.40	42	31.49	155	33.359	205	73.50	301
30	14.82	50	29.94	114	33.564	246	70.49	296
Juni 9	15.32	56	28.80	70	33.810	280	67.53	283
19	15.88	61	28.10	23	34.090	309	64.70	264
29	16.49	63	27.87	23	34.399	328	62.06	237
Juli 9	17.12	66	28.10	70	34.727	339	59.69	204
19	17.78	65	28.80	115	35.066	342	57.65	167
29	18.43	64	29.95	157	35.408	336	55.98	125
Aug. 8	19.07	61	31.52	196	35.744	323	54.73	79
18	19.68	58	33.48	230	36.067	302	53.94	31
28	20.26	53	35.78	260	36.369	276	53.63	16
Sept. 7	20.79	47	38.38	285	36.645	244	53.79	63
17	21.26	41	41.23	304	36.889	209	54.42	106
27	21.67	34	44.27	318	37.098	172	55.48	143
Okt. 7	22.01	27	47.45	325	37.270	133	56.91	174
17	22.28	20	50.70	326	37.403	93	58.65	198
26*)	(25) 22.48	11	53.96	320	(25) 37.496	55	60.63	212
Nov. 5	22.59	4	57.16	308	37.551	18	62.75	218
15	22.63	5	60.24	287	37.569	17	64.93	214
25	22.58	13	63.11	259	37.552	51	67.07	201
Dez. 5	22.45	20	65.70	225	37.501	81	69.08	180
15	22.25	28	67.95	183	37.420	109	70.88	153
25	21.97	34	69.78	136	37.311	131	72.41	119
35	21.63		71.14		37.180		73.60	
Mittl. Ort	17.56		38.67		34.441		77.89	
sec δ, tg δ	2.486		+2.276		1.166		−0.600	
a, *a′*	+4.7		+16.9		+2.6		+16.9	
b, *b′*	+0.13		−0.54		−0.03		−0.54	

Tag	80) 67 Ceti AR.		80) 67 Ceti Dekl.		85) ξ² Ceti AR.		85) ξ² Ceti Dekl.	
1947	2h 14m		−6° 39′		2h 25m		+8° 13′	
	s		″		s		″	
Jan. 0	19.930	103	63.03	79	19.837	95	22.57	52
10	19.827	120	63.82	65	19.742	115	22.05	51
20	19.707	131	64.47	47	19.627	131	21.54	51
30	19.576	138	64.94	28	19.496	138	21.03	47
Febr. 9	19.438	136	65.22	7	19.358	140	20.56	42
19	19.302	127	65.29	14	19.218	133	20.14	34
März 1	19.175	110	65.15	36	19.085	116	19.80	24
11	19.065	85	64.79	60	18.969	92	19.56	11
21	18.980	54	64.19	84	18.877	61	19.45	4
31	18.926	16	63.35	108	18.816	23	19.49	23
April 10	18.910	26	62.27	131	18.793	21	19.72	43
20	18.936	70	60.96	154	18.814	66	20.15	64
30	19.006	115	59.42	174	18.880	111	20.79	87
Mai 10	19.121	159	57.68	191	18.991	157	21.66	108
20	19.280	200	55.77	205	19.148	199	22.74	129
30	19.480	235	53.72	215	19.347	234	24.03	147
Juni 9	19.715	265	51.57	219	19.581	266	25.50	162
19	19.980	289	49.38	219	19.847	290	27.12	172
29	20.269	304	47.19	212	20.137	306	28.84	180
Juli 9	20.573	313	45.07	200	20.443	316	30.64	181
19	20.886	313	43.07	183	20.759	316	32.45	178
29	21.199	307	41.24	161	21.075	311	34.23	171
Aug. 8	21.506	294	39.63	134	21.386	300	35.94	159
18	21.800	274	38.29	105	21.686	282	37.53	143
28	22.074	252	37.24	74	21.968	261	38.96	125
Sept. 7	22.326	226	36.50	41	22.229	236	40.21	103
17	22.552	196	36.09	9	22.465	209	41.24	81
27	22.748	166	36.00	20	22.674	180	42.05	59
Okt. 7	22.914	135	36.20	47	22.854	151	42.64	38
17	23.049	105	36.67	70	23.005	121	43.02	18
26*)	(26) 23.154	73	37.37	87	(28) 23.126	92	43.20	0
Nov. 5	23.227	43	38.24	100	23.218	62	43.20	14
15	23.270	15	39.24	108	23.280	32	43.06	27
25	23.285	14	40.32	109	23.312	4	42.79	36
Dez. 5	23.271	40	41.41	105	23.316	25	42.43	43
15	23.231	65	42.46	99	23.291	53	42.00	47
25	23.166	88	43.45	87	23.238	77	41.53	50
35	23.078		44.32		23.161		41.03	
Mittl. Ort	20.272		55.80		20.218		24.78	
sec δ, tg δ	1.007		−0.117		1.010		+0.145	
a, *a′*	+3.0		+16.7		+3.2		+16.1	
b, *b′*	−0.01		−0.55		+0.01		−0.59	

*) Bei Stern 85) lies Okt. 27.

Tag	90) μ Hydri				87) 36 H. Cassiopeiae				89) ν Arietis				91) δ Ceti			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$2^h\ 32^m$		$-79°\ 19'$		$2^h\ 32^m$		$+72°\ 35'$		$2^h\ 35^m$		$+21°\ 43'$		$2^h\ 36^m$		$+0°\ 5'$	
	s		"		s		"		s		"		s		"	
Jan. 0	49.46	111	108.06	82	56.60	51	31.58	149	47.652	99	62.32	13	45.486	92	59.04	72
10	48.35	118	108.88	22	56.09	58	33.07	94	47.553	123	62.19	27	45.394	113	58.32	62
20	47.17	120	109.10	$\overline{40}$	55.51	62	34.01	36	47.430	142	61.92	39	45.281	129	57.70	51
30	45.97	119	108.70	99	54.89	64	34.37	$\overline{21}$	47.288	153	61.53	51	45.152	140	57.19	40
Febr. 9	44.78	115	107.71	155	54.25	64	34.16	77	47.135	156	61.02	61	45.012	142	56.79	25
19	43.63	108	106.16	207	53.61	59	33.39	130	46.979	149	60.41	67	44.870	137	56.54	10
März 1	42.55	98	104.09	252	53.02	53	32.09	176	46.830	134	59.74	69	44.733	124	56.44	$\overline{7}$
11	41.57	86	101.57	292	52.49	44	30.33	213	46.696	108	59.05	69	44.609	101	56.51	26
21	40.71	72	98.65	325	52.05	32	28.20	242	46.588	74	58.36	62	44.508	71	56.77	46
31	39.99	55	95.40	351	51.73	20	25.78	260	46.514	34	57.74	51	44.437	34	57.23	67
April 10	39.44	37	91.89	369	51.53	6	23.18	266	46.480	$\overline{12}$	57.23	37	44.403	$\overline{7}$	57.90	89
20	39.07	19	88.20	378	51.47	$\overline{8}$	20.52	263	46.492	60	56.86	18	44.410	51	58.79	111
30	38.88	$\overline{1}$	84.42	380	51.55	23	17.89	249	46.552	110	56.68	$\overline{3}$	44.461	97	59.90	132
Mai 10	38.89	20	80.62	374	51.78	36	15.40	226	46.662	158	56.71	27	44.558	141	61.22	152
20	39.09	39	76.88	360	52.14	48	13.14	196	46.820	203	56.98	52	44.699	183	62.74	168
30	39.48	57	73.28	336	52.62	59	11.18	158	47.023	243	57.50	75	44.882	221	64.42	182
Juni 9	40.05	74	69.92	306	53.21	68	9.60	117	47.266	276	58.25	98	45.103	253	66.24	193
19	40.79	89	66.86	268	53.89	76	8.43	72	47.542	302	59.23	119	45.356	278	68.17	197
29	41.68	100	64.18	223	54.65	81	7.71	24	47.844	320	60.42	136	45.634	297	70.14	196
Juli 9	42.68	111	61.95	172	55.46	84	7.47	$\overline{24}$	48.164	331	61.78	151	45.931	308	72.10	192
19	43.79	117	60.23	117	56.30	85	7.71	71	48.495	334	63.29	160	46.239	312	74.02	182
29	44.96	119	59.06	57	57.15	85	8.42	116	48.829	330	64.89	166	46.551	308	75.84	166
Aug. 8	46.15	119	58.49	$\overline{3}$	58.00	83	9.58	160	49.159	319	66.55	168	46.859	298	77.50	146
18	47.34	115	58.52	64	58.83	79	11.18	200	49.478	302	68.23	165	47.157	284	78.96	123
28	48.49	106	59.16	122	59.62	74	13.18	236	49.780	282	69.88	159	47.441	264	80.19	97
Sept. 7	49.55	95	60.38	177	60.36	68	15.54	267	50.062	257	71.47	151	47.705	240	81.16	70
17	50.50	80	62.15	225	61.04	60	18.21	294	50.319	231	72.98	139	47.945	215	81.86	41
27	51.30	62	64.40	265	61.64	51	21.15	314	50.550	202	74.37	125	48.160	187	82.27	15
Okt. 7	51.92	43	67.05	295	62.15	42	24.29	329	50.752	172	75.62	112	48.347	158	82.42	$\overline{11}$
17	52.35	21	70.00	313	62.57	32	27.58	338	50.924	141	76.74	96	48.505	128	82.31	33
27	52.56	$\overline{1}$	73.13	320	62.89	22	30.96	338	51.065	111	77.70	82	48.633	99	81.98	51
Nov. 5	^{30}52.55	22	76.33	313	^{30}63.11	10	34.34	332	^{31}51.176	79	78.52	67	^{31}48.732	69	81.47	66
15	52.33	44	79.46	294	63.21	$\overline{1}$	37.66	318	51.255	47	79.19	53	48.801	40	80.81	75
25	51.89	63	82.40	263	63.20	14	40.84	296	51.302	15	79.72	39	48.841	9	80.06	81
Dez. 5	51.26	81	85.03	223	63.06	24	43.80	264	51.317	$\overline{18}$	80.11	25	48.850	$\overline{19}$	79.25	83
15	50.45	95	87.26	173	62.82	35	46.44	227	51.299	49	80.36	10	48.831	47	78.42	80
25	49.50	103	88.99	118	62.47	45	48.71	180	51.250	79	80.46	$\overline{4}$	48.784	74	77.62	75
35	48.47		90.17		62.02		50.51		51.171		80.42		48.710		76.87	
Mittl. Ort	44.70		87.06		56.59		18.27		48.037		60.22		45.759		63.52	
sec δ, tg δ	5.406		−5.313		3.342		+3.189		1.077		+0.399		1.000		+0.002	
a, a'	−1.3		+15.8		+5.7		+15.7		+3.4		+15.6		+3.1		+15.5	
b, b'	−0.28		−0.62		+0.17		−0.62		+0.02		−0.63		0.00		−0.63	

Tag	93) ϑ Persei AR.	Δ	93) ϑ Persei Dekl.	Δ	97) π Ceti AR.	Δ	97) π Ceti Dekl.	Δ	98) μ Ceti AR.	Δ	98) μ Ceti Dekl.	Δ	100) 41 Arietis AR.	Δ	100) 41 Arietis Dekl.	Δ
1947	$2^h\ 40^m$		$+49°\ 0'$		$2^h\ 41^m$		$-14°\ 4'$		$2^h\ 42^m$		$+9°\ 53'$		$2^h\ 46^m$		$+27°\ 2'$	
	s		"		s		"		s		"		s		"	
Jan. 0	33.637	170	29.93	80	35.782	102	64.40	102	4.063	89	28.00	47	51.097	100	39.64	8
10	33.467	205	30.73	41	35.680	123	65.42	78	3.974	111	27.53	47	50.997	127	39.72	10
20	33.262	231	31.14	1	35.557	140	66.20	53	3.863	130	27.06	47	50.870	149	39.62	28
30	33.031	247	31.15	39	35.417	150	66.73	26	3.733	141	26.59	46	50.721	163	39.34	45
Febr. 9	32.784	250	30.76	76	35.267	153	66.99	1	3.592	145	26.13	42	50.558	168	38.89	60
19	32.534	238	30.00	110	35.114	149	66.98	31	3.447	141	25.71	36	50.390	163	38.29	73
März 1	32.296	213	28.90	139	34.965	134	66.67	59	3.306	127	25.35	28	50.227	147	37.56	81
11	32.083	176	27.51	160	34.831	113	66.08	87	3.179	105	25.07	17	50.080	123	36.75	85
21	31.907	127	25.91	175	34.718	83	65.21	115	3.074	75	24.90	3	49.957	89	35.90	84
31	31.780	70	24.16	181	34.635	47	64.06	142	2.999	37	24.87	13	49.868	47	35.06	78
April 10	31.710	5	22.35	179	34.588	6	62.64	167	2.962	5	25.00	32	49.821	0	34.28	66
20	31.705	63	20.56	168	34.582	39	60.97	190	2.967	51	25.32	52	49.821	51	33.62	51
30	31.768	132	18.88	151	34.621	84	59.07	209	3.018	98	25.84	73	49.872	103	33.11	31
Mai 10	31.900	197	17.37	128	34.705	130	56.98	225	3.116	143	26.57	94	49.975	153	32.80	8
20	32.097	258	16.09	98	34.835	173	54.73	237	3.259	186	27.51	115	50.128	200	32.72	17
30	32.355	313	15.11	66	35.008	213	52.36	244	3.445	224	28.66	133	50.328	243	32.89	42
Juni 9	32.668	358	14.45	31	35.221	246	49.92	244	3.669	257	29.99	149	50.571	279	33.31	67
19	33.026	395	14.14	5	35.467	274	47.48	239	3.926	283	31.48	161	50.850	307	33.98	90
29	33.421	420	14.19	42	35.741	295	45.09	228	4.209	303	33.09	169	51.157	327	34.88	111
Juli 9	33.841	436	14.61	76	36.036	307	42.81	211	4.512	313	34.78	173	51.484	341	35.99	130
19	34.277	441	15.37	110	36.343	313	40.70	188	4.825	317	36.51	172	51.825	345	37.29	145
29	34.718	438	16.47	140	36.656	312	38.82	159	5.142	315	38.23	165	52.170	342	38.74	155
Aug. 8	35.156	426	17.87	167	36.968	304	37.23	127	5.457	305	39.88	156	52.512	334	40.29	163
18	35.582	406	19.54	190	37.272	289	35.96	92	5.762	291	41.44	142	52.846	318	41.92	165
28	35.988	381	21.44	209	37.561	270	35.04	53	6.053	272	42.86	125	53.164	299	43.57	165
Sept. 7	36.369	350	23.53	224	37.831	246	34.51	15	6.325	249	44.11	106	53.463	275	45.22	162
17	36.719	315	25.77	235	38.077	219	34.36	22	6.574	224	45.17	84	53.738	249	46.84	154
27	37.034	277	28.12	242	38.296	191	34.58	58	6.798	196	46.01	64	53.987	221	48.38	146
Okt. 7	37.311	236	30.54	244	38.487	160	35.16	88	6.994	169	46.65	44	54.208	190	49.84	135
17	37.547	192	32.98	243	38.647	129	36.04	115	7.163	140	47.09	24	54.398	160	51.19	124
27	37.739	148	35.41	236	38.776	96	37.19	134	7.303	110	47.33	7	54.558	128	52.43	111
Nov. 5	37.887	101	37.77	226	38.872	65	38.53	147	7.413	80	47.40	7	54.686	94	53.54	98
15	37.988	52	40.03	211	38.937	34	40.00	153	7.493	50	47.33	20	54.780	61	54.52	84
25	38.040	3	42.14	191	38.971	2	41.53	152	7.543	20	47.13	29	54.841	26	55.36	69
Dez. 5	38.043	47	44.05	166	38.973	28	43.05	145	7.563	11	46.84	35	54.867	10	56.05	54
15	37.996	95	45.71	136	38.945	58	44.50	131	7.552	41	46.49	41	54.857	45	56.59	37
25	37.901	140	47.07	103	38.887	84	45.81	115	7.511	69	46.08	45	54.812	77	56.96	20
35	37.761		48.10		38.803		46.96		7.442		45.63		54.735		57.16	
Mittl. Ort	33.984		20.72		35.906		55.82		4.368		29.37		51.437		35.94	
sec δ, tg δ	1.524		+1.151		1.031		−0.251		1.015		+0.174		1.123		+0.510	
a, *a′*	+4.1		+15.3		+2.9		+15.3		+3.2		+15.2		+3.5		+15.0	
b, *b′*	+0.06		−0.64		−0.01		−0.65		+0.01		−0.65		+0.03		−0.67	

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Tag	101) β Fornacis				102) τ^2 Eridani				103) τ Persei				104) η Eridani			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$2^h\ 46^m$		−32° 37′		$2^h\ 48^m$		−21° 12′		$2^h\ 50^m$		+52° 32′		$2^h\ 53^m$		−9° 6′	
	s		″		s		″		s		″		s		″	
Jan. 0	52.491	140	52.44	130	37.991	111	87.80	118	28.845	183	59.47	101	50.055	91	35.43	97
10	52.351	164	53.74	89	37.880	134	88.98	87	28.662	223	60.48	61	49.964	114	36.40	79
20	52.187	182	54.63	48	37.746	152	89.85	55	28.439	254	61.09	18	49.850	134	37.19	59
30	52.005	191	55.11	4	37.594	162	90.40	22	28.185	273	61.27	24	49.716	147	37.78	36
Febr. 9	51.814	194	55.15	38	37.432	166	90.62	13	27.912	278	61.03	65	49.569	151	38.14	12
19	51.620	187	54.77	81	37.266	162	90.49	48	27.634	268	60.38	103	49.418	149	38.26	12
März 1	51.433	172	53.96	122	37.104	149	90.01	81	27.366	244	59.35	136	49.269	138	38.14	37
11	51.261	148	52.74	160	36.955	127	89.20	114	27.122	206	57.99	162	49.131	117	37.77	62
21	51.113	116	51.14	196	36.828	98	88.06	146	26.916	154	56.37	180	49.014	90	37.15	87
31	50.997	77	49.18	227	36.730	61	86.60	175	26.762	93	54.57	190	48.924	54	36.28	113
April 10	50.920	32	46.91	255	36.669	20	84.85	201	26.669	25	52.67	192	48.870	14	35.15	136
20	50.888	17	44.36	277	36.649	26	82.84	224	26.644	48	50.75	185	48.856	29	33.79	160
30	50.905	68	41.59	295	36.675	73	80.60	244	26.692	122	48.90	171	48.885	75	32.19	180
Mai 10	50.973	118	38.64	305	36.748	120	78.16	258	26.814	193	47.19	149	48.960	121	30.39	197
20	51.091	167	35.59	311	36.868	165	75.58	267	27.007	259	45.70	121	49.081	164	28.42	211
30	51.258	211	32.48	308	37.033	206	72.91	271	27.266	319	44.49	90	49.245	203	26.31	221
Juni 9	51.469	252	29.40	299	37.239	242	70.20	268	27.585	369	43.59	56	49.448	238	24.10	226
19	51.721	285	26.41	281	37.481	272	67.52	258	27.954	411	43.03	18	49.686	266	21.84	224
29	52.006	310	23.60	257	37.753	295	64.94	243	28.365	440	42.85	19	49.952	288	19.60	218
Juli 9	52.316	329	21.03	227	38.048	311	62.51	219	28.805	460	43.04	55	50.240	301	17.42	205
19	52.645	339	18.76	189	38.359	318	60.32	191	29.265	469	43.59	91	50.541	309	15.37	187
29	52.984	340	16.87	147	38.677	319	58.41	157	29.734	467	44.50	124	50.850	309	13.50	163
Aug. 8	53.324	334	15.40	100	38.996	311	56.84	119	30.201	458	45.74	154	51.159	303	11.87	136
18	53.658	319	14.40	51	39.307	299	55.65	78	30.659	439	47.28	180	51.462	290	10.51	104
28	53.977	300	13.89	0	39.606	280	54.87	34	31.098	415	49.08	203	51.752	273	9.47	69
Sept. 7	54.277	274	13.89	49	39.886	257	54.53	10	31.513	383	51.11	221	52.025	251	8.78	35
17	54.551	243	14.38	97	40.143	229	54.63	51	31.896	348	53.32	236	52.276	227	8.43	0
27	54.794	209	15.35	139	40.372	199	55.14	90	32.244	309	55.68	247	52.503	200	8.43	33
Okt. 7	55.003	172	16.74	176	40.571	168	56.04	124	32.553	265	58.15	253	52.703	172	8.76	64
17	55.175	133	18.50	205	40.739	134	57.28	152	32.818	220	60.68	254	52.875	142	9.40	88
27	[3] 55.308	95	20.55	225	[3] 40.873	101	58.80	173	[4] 33.038	171	63.22	251	[5] 53.017	111	10.28	109
Nov. 5	55.403	56	22.80	235	40.974	67	60.53	185	33.209	120	65.73	243	53.128	81	11.37	123
15	55.459	16	25.15	236	41.041	33	62.38	190	33.329	66	68.16	230	53.209	50	12.60	132
25	55.475	21	27.51	227	41.074	0	64.28	186	33.395	12	70.46	212	53.259	18	13.92	133
Dez. 5	55.454	58	29.78	209	41.074	33	66.14	175	33.407	44	72.58	188	53.277	14	15.25	129
15	55.396	91	31.87	184	41.041	64	67.89	157	33.363	97	74.46	158	53.263	43	16.54	121
25	55.305	122	33.71	151	40.977	93	69.46	134	33.266	149	76.04	124	53.220	72	17.75	107
35	55.183		35.22		40.884		70.80		33.117		77.28		53.148		18.82	
Mittl. Ort	52.311		39.17		37.989		77.52		29.098		49.63		50.166		28.73	
sec δ, tg δ	1.187		−0.640		1.073		−0.388		1.644		+1.305		1.013		−0.160	
a, *a′*	+2.5		+15.0		+2.7		+14.9		+4.3		+14.7		+2.9		+14.5	
b, *b′*	−0.03		− 0.67		−0.02		− 0.67		+0.06		− 0.68		−0.01		− 0.69	

Tag	106) ϑ Eridani *pr* AR.		Dekl.		105) 47 H. Cephei AR.		Dekl.		107) α Ceti AR.		Dekl.		108) γ Persei AR.		Dekl.	
1947	$2^h\ 56^m$		$-40°\ 30'$		$2^h\ 58^m$		$+79°\ 12'$		$2^h\ 59^m$		$+3°\ 52'$		$3^h\ 0^m$		$+53°\ 17'$	
	s		″		s		″		s		″		s		″	
Jan. 0	15.475	167	72.66	144	58.28	80	57.06	198	30.155	81	56.02	64	56.380	177	71.81	112
10	15.308	195	74.10	98	57.48	92	59.04	143	30.074	106	55.38	58	56.203	221	72.93	73
20	15.113	214	75.08	52	56.56	102	60.47	86	29.968	127	54.80	51	55.982	255	73.66	32
30	14.899	226	75.60	3	55.54	107	61.33	25	29.841	141	54.29	42	55.727	278	73.98	12
Febr. 9	14.673	230	75.63	47	54.47	108	61.58	36	29.700	149	53.87	31	55.449	286	73.86	54
19	14.443	223	75.16	93	53.39	103	61.22	95	29.551	147	53.56	20	55.163	279	73.32	92
März 1	14.220	208	74.23	138	52.36	95	60.27	147	29.404	136	53.36	7	54.884	258	72.40	127
11	14.012	182	72.85	180	51.41	82	58.80	193	29.268	116	53.29	8	54.626	220	71.13	155
21	13.830	148	71.05	218	50.59	66	56.87	231	29.152	89	53.37	26	54.406	170	69.58	175
31	13.682	107	68.87	252	49.93	46	54.56	258	29.063	54	53.63	44	54.236	110	67.83	188
April 10	13.575	59	66.35	281	49.47	25	51.98	274	29.009	13	54.07	64	54.126	41	65.95	193
20	13.516	7	63.54	304	49.22	4	49.24	280	28.996	31	54.71	85	54.085	32	64.02	188
30	13.509	48	60.50	321	49.18	19	46.44	274	29.027	77	55.56	105	54.117	107	62.14	175
Mai 10	13.557	103	57.29	331	49.37	41	43.70	259	29.104	122	56.61	125	54.224	180	60.39	157
20	13.660	157	53.98	334	49.78	61	41.11	235	29.226	166	57.86	143	54.404	249	58.82	131
30	13.817	207	50.64	329	50.39	80	38.76	204	29.392	205	59.29	158	54.653	311	57.51	101
Juni 9	14.024	252	47.35	317	51.19	95	36.72	166	29.597	240	60.87	171	54.964	364	56.50	68
19	14.276	290	44.18	297	52.14	109	35.06	124	29.837	267	62.58	178	55.328	408	55.82	32
29	14.566	321	41.21	268	53.23	120	33.82	77	30.104	289	64.36	181	55.736	441	55.50	5
Juli 9	14.887	344	38.53	234	54.43	127	33.05	30	30.393	304	66.17	181	56.177	463	55.55	41
19	15.231	358	36.19	192	55.70	131	32.75	19	30.697	310	67.98	174	56.640	475	55.96	76
29	15.589	363	34.27	145	57.01	133	32.94	68	31.007	309	69.72	162	57.115	476	56.72	110
Aug. 8	15.952	359	32.82	94	58.34	133	33.62	114	31.316	304	71.34	147	57.591	469	57.82	140
18	16.311	347	31.88	40	59.67	129	34.76	158	31.620	292	72.81	127	58.060	453	59.22	168
28	16.658	327	31.48	15	60.96	122	36.34	201	31.912	276	74.08	105	58.513	430	60.90	192
Sept. 7	16.985	300	31.63	69	62.18	115	38.35	238	32.188	256	75.13	80	58.943	401	62.82	212
17	17.285	269	32.32	120	63.33	104	40.73	272	32.444	232	75.93	55	59.344	367	64.94	228
27	17.554	230	33.52	166	64.37	92	43.45	300	32.676	208	76.48	30	59.711	329	67.22	240
Okt. 7	17.784	191	35.18	205	65.29	77	46.45	323	32.884	180	76.78	6	60.040	287	69.62	248
17	17.975	147	37.23	235	66.06	62	49.68	339	33.064	153	76.84	15	60.327	240	72.10	252
27	18.122	103	39.58	257	66.68	45	53.07	349	33.217	123	76.69	34	60.567	192	74.62	250
Nov. 5*)	[5] 18.225	57	42.15	267	[6] 67.13	26	56.56	350	[6] 33.340	94	76.35	48	[6] 60.759	139	77.12	245
15	18.282	13	44.82	267	67.39	7	60.06	343	33.434	64	75.87	58	60.898	85	79.57	234
25	18.295	31	47.49	256	67.46	13	63.49	329	33.498	32	75.29	66	60.983	28	81.91	218
Dez. 5	18.264	74	50.05	235	67.33	32	66.78	303	33.530	1	74.63	68	61.011	29	84.09	195
15	18.190	111	52.40	206	67.01	51	69.81	270	33.531	30	73.95	69	60.982	87	86.04	168
25	18.079	147	54.46	169	66.50	69	72.51	228	33.501	61	73.26	67	60.895	141	87.72	136
35	17.932		56.15		65.81		74.79		33.440		72.59		60.754		89.08	
Mittl. Ort	15.046		58.16		57.17		43.64		30.341		58.81		56.552		61.95	
sec δ, tg δ	1.315		−0.855		5.343		+5.248		1.002		+0.068		1.673		+1.342	
a, *a′*	+2.3		+14.4		+8.0		+14.2		+3.1		+14.2		+4.3		+14.1	
b, *b′*	−0.04		− 0.70		+0.25		− 0.70		0.00		− 0.71		+0.06		− 0.71	

* Bei Stern 105), 107) und 108) lies Nov. 6.

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Tag		109) ρ Persei AR.		109) ρ Persei Dekl.		110) μ Horologii AR.		110) μ Horologii Dekl.		111) β Persei AR.		111) β Persei Dekl.		114) δ Arietis AR.		114) δ Arietis Dekl.	
1947		$3^h\ 1^m$		+38° 36′		$3^h\ 2^m$		−59° 56′		$3^h\ 4^m$		+40° 45′		$3^h\ 8^m$		+19° 31′	
		s		″		s		″		s		″		s		″	
Jan.	0	46.001	114	17.59	58	23.066	321	50.86	150	42.418	117	18.02	68	35.373	79	41.23	11
	10	45.887	148	18.17	31	22.745	358	52.36	95	42.301	154	18.70	39	35.294	109	41.12	20
	20	45.739	176	18.48	1	22.387	384	53.31	38	42.147	183	19.09	8	35.185	133	40.92	28
	30	45.563	194	18.49	27	22.003	398	53.69	20	41.964	203	19.17	22	35.052	150	40.64	37
Febr.	9	45.369	203	18.22	55	21.605	398	53.49	76	41.761	212	18.95	52	34.902	159	40.27	44
	19	45.166	200	17.67	80	21.207	386	52.73	130	41.549	209	18.43	79	34.743	159	39.83	49
März	1	44.966	184	16.87	100	20.821	362	51.43	181	41.340	194	17.64	102	34.584	149	39.34	50
	11	44.782	158	15.87	116	20.459	324	49.62	227	41.146	166	16.62	120	34.435	129	38.84	49
	21	44.624	120	14.71	126	20.135	275	47.35	268	40.980	128	15.42	132	34.306	100	38.35	45
	31	44.504	74	13.45	129	19.860	216	44.67	302	40.852	81	14.10	137	34.206	62	37.90	36
April	10	44.430	21	12.16	125	19.644	149	41.65	331	40.771	27	12.73	134	34.144	20	37.54	23
	20	44.409	36	10.91	116	19.495	75	38.34	352	40.744	32	11.39	127	34.124	28	37.31	8
	30	44.445	95	9.75	100	19.420	1	34.82	365	40.776	92	10.12	112	34.152	77	37.23	10
Mai	10	44.540	151	8.75	79	19.421	80	31.17	372	40.868	152	9.00	92	34.229	125	37.33	31
	20	44.691	206	7.96	55	19.501	157	27.45	369	41.020	207	8.08	67	34.354	171	37.64	51
	30	44.897	255	7.41	28	19.658	231	23.76	357	41.227	257	7.41	41	34.525	214	38.15	73
Juni	9	45.152	297	7.13	0	19.889	300	20.19	338	41.484	302	7.00	11	34.739	250	38.88	92
	19	45.449	332	7.13	30	20.189	360	16.81	311	41.786	337	6.89	18	34.989	280	39.80	110
	29	45.781	356	7.43	58	20.549	411	13.70	274	42.123	363	7.07	47	35.269	303	40.90	125
Juli	9	46.137	374	8.01	84	20.960	451	10.96	231	42.486	382	7.54	75	35.572	319	42.15	136
	19	46.511	383	8.85	109	21.411	479	8.65	181	42.868	391	8.29	102	35.891	327	43.51	144
	29	46.894	383	9.94	131	21.890	494	6.84	127	43.259	393	9.31	125	36.218	327	44.95	149
Aug.	8	47.277	375	11.25	148	22.384	495	5.57	68	43.652	386	10.56	144	36.545	323	46.44	148
	18	47.652	363	12.73	163	22.879	484	4.89	7	44.038	372	12.00	162	36.868	311	47.92	144
	28	48.015	343	14.36	174	23.363	459	4.82	54	44.410	355	13.62	174	37.179	296	49.36	136
Sept.	7	48.358	320	16.10	182	23.822	422	5.36	113	44.765	330	15.36	183	37.475	277	50.72	127
	17	48.678	293	17.92	185	24.244	375	6.49	169	45.095	304	17.19	191	37.752	254	51.99	114
	27	48.971	263	19.77	187	24.619	318	8.18	217	45.399	273	19.10	193	38.006	229	53.13	101
Okt.	7	49.234	231	21.64	185	24.937	254	10.35	258	45.672	240	21.03	193	38.235	203	54.14	87
	17	49.465	198	23.49	181	25.191	184	12.93	289	45.912	206	22.96	190	38.438	175	55.01	73
	27	49.663	160	25.30	173	25.375	110	15.82	308	46.118	168	24.86	186	38.613	144	55.74	60
Nov.	6	49.823	122	27.03	165	25.485	35	18.90	315	46.286	128	26.72	176	38.757	114	56.34	47
	15	7 49.945	82	28.68	152	7 25.520	39	22.05	311	7 46.414	86	28.48	165	8 38.871	82	56.81	35
	25	50.027	41	30.20	138	25.481	111	25.16	292	46.500	43	30.13	150	38.953	48	57.16	24
Dez.	5	50.068	3	31.58	119	25.370	178	28.08	265	46.543	1	31.63	131	39.001	13	57.40	15
	15	50.065	45	32.77	98	25.192	239	30.73	227	46.542	46	32.94	111	39.014	22	57.55	5
	25	50.020	86	33.75	75	24.953	293	33.00	181	46.496	89	34.05	85	38.992	56	57.60	5
	35	49.934		34.50		24.660		34.81		46.407		34.90		38.936		57.55	
Mittl. Ort		46.259		10.91		21.670		33.55		42.653		10.86		35.589		39.45	
sec δ, tg δ		1.280		+0.799		1.997		−1.728		1.320		+0.862		1.061		+0.355	
a, *a′*		+3.8		+14.1		+1.4		+14.0		+3.9		+13.9		+3.4		+13.6	
b, *b′*		+0.04		− 0.71		−0.08		− 0.71		+0.04		− 0.72		+0.02		− 0.73	

Tag	1090) 79 G. Fornacis				115) 48 H. Cephei				120) α Persei				121) o Tauri			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$3^h\ 12^m$		$-35°\ 44'$		$3^h\ 13^m$		$+77°\ 32'$		$3^h\ 20^m$		$+49°\ 40'$		$3^h\ 21^m$		$+8°\ 50'$	
	s		″		s		″		s		″		s		″	
Jan. 0	35.369	140	86.60	155	32.19	63	47.86	207	31.516	137	36.41	114	57.324	68	36.49	48
10	35.229	169	88.15	115	31.56	75	49.93	157	31.379	182	37.55	79	57.256	98	36.01	47
20	35.060	192	89.30	71	30.81	85	51.50	101	31.197	220	38.34	43	57.158	123	35.54	44
30	34.868	208	90.01	25	29.96	91	52.51	41	30.977	246	38.77	4	57.035	142	35.10	39
Febr. 9	34.660	214	90.26	21	29.05	92	52.92	18	30.731	261	38.81	34	56.893	153	34.71	35
19	34.446	213	90.05	66	28.13	90	52.74	76	30.470	260	38.47	69	56.740	155	34.36	28
März 1	34.233	201	89.39	110	27.23	84	51.98	130	30.210	245	37.78	103	56.585	148	34.08	19
11	34.032	180	88.29	151	26.39	74	50.68	176	29.965	217	36.75	131	56.437	131	33.89	9
21	33.852	150	86.78	190	25.65	61	48.92	216	29.748	174	35.44	151	56.306	105	33.80	3
31	33.702	112	84.88	224	25.04	44	46.76	246	29.574	121	33.93	165	56.201	72	33.83	18
April 10	33.590	68	82.64	254	24.60	27	44.30	265	29.453	59	32.28	170	56.129	33	34.01	35
20	33.522	19	80.10	280	24.33	8	41.65	273	29.394	7	30.58	170	56.096	12	34.36	53
30	33.503	33	77.30	300	24.25	12	38.92	271	29.401	77	28.88	160	56.108	58	34.89	71
Mai 10	33.536	85	74.30	313	24.37	31	36.21	260	29.478	146	27.28	144	56.166	105	35.60	91
20	33.621	137	71.17	320	24.68	49	33.61	238	29.624	211	25.84	122	56.271	149	36.51	109
30	33.758	185	67.97	319	25.17	66	31.23	210	29.835	271	24.62	97	56.420	191	37.60	126
Juni 9	33.943	229	64.78	312	25.83	80	29.13	175	30.106	323	23.65	67	56.611	227	38.86	140
19	34.172	267	61.66	296	26.63	93	27.38	136	30.429	368	22.98	35	56.838	257	40.26	150
29	34.439	298	58.70	272	27.56	103	26.02	91	30.797	402	22.63	3	57.095	282	41.76	158
Juli 9	34.737	322	55.98	242	28.59	110	25.11	46	31.199	427	22.60	30	57.377	299	43.34	161
19	35.059	337	53.56	204	29.69	115	24.65	1	31.626	442	22.90	62	57.676	308	44.95	159
29	35.396	344	51.52	162	30.84	118	24.66	49	32.068	447	23.52	92	57.984	312	46.54	153
Aug. 8	35.740	343	49.90	113	32.02	118	25.15	94	32.515	445	24.44	120	58.296	309	48.07	142
18	36.083	334	48.77	62	33.20	115	26.09	139	32.960	434	25.64	144	58.605	301	49.49	128
28	36.417	319	48.15	9	34.35	111	27.48	180	33.394	416	27.08	166	58.906	288	50.77	110
Sept. 7	36.736	297	48.06	44	35.46	105	29.28	219	33.810	393	28.74	185	59.194	271	51.87	90
17	37.033	269	48.50	95	36.51	96	31.47	252	34.203	365	30.59	200	59.465	251	52.77	69
27	37.302	237	49.45	141	37.47	86	33.99	282	34.568	333	32.59	211	59.716	228	53.46	48
Okt. 7	37.539	201	50.86	182	38.33	75	36.81	307	34.901	297	34.70	219	59.944	204	53.94	27
17	37.740	163	52.68	216	39.08	62	39.88	325	35.198	256	36.89	223	60.148	177	54.21	7
27	37.903	123	54.84	239	39.70	47	43.13	337	35.454	213	39.12	224	60.325	149	54.28	9
Nov. 6	38.026	82	57.23	254	40.17	31	46.50	341	35.667	166	41.36	221	60.474	120	54.19	23
15	[9] 38.108	39	59.77	258	[10] 40.48	15	49.91	338	[11] 35.833	116	43.57	213	[12] 60.594	88	53.96	34
25	38.147	2	62.35	251	40.63	3	53.29	326	35.949	63	45.70	200	60.682	56	53.62	42
Dez. 5	38.145	43	64.86	235	40.60	20	56.55	304	36.012	8	47.70	183	60.738	23	53.20	46
15	38.102	82	67.21	211	40.40	37	59.59	274	36.020	47	49.53	161	60.761	12	52.74	48
25	38.020	118	69.32	178	40.03	53	62.33	236	35.973	100	51.14	133	60.749	45	52.26	49
35	37.902		71.10		39.50		64.69		35.873		52.47		60.704		51.77	
Mittl. Ort	34.958		74.08		31.07		34.94		31.598		27.56		57.437		37.41	
sec δ, tg δ	1.232		−0.720		4.636		+4.527		1.545		+1.178		1.012		+0.156	
a, *a′*	+2.4		+13.4		+7.6		+13.3		+4.3		+12.8		+3.2		+12.8	
b, *b′*	−0.03		−0.74		+0.20		−0.75		+0.05		−0.77		+0.01		−0.77	

Scheinbare Sternörter 1947

Tag		122) 2 H. Camelop. AR.		122) 2 H. Camelop. Dekl.		125) 5 Tauri AR.		125) 5 Tauri Dekl.	
1947		$3^h\ 24^m$		$+59°\ 45'$		$3^h\ 27^m$		$+12°\ 45'$	
		s		"		s		"	
Jan.	0	45.581	196	37.94	156	56.467	64	23.49	33
	10	45.385	255	39.50	116	56.403	96	23.16	35
	20	45.130	303	40.66	72	56.307	123	22.81	36
	30	44.827	337	41.38	26	56.184	143	22.45	36
Febr.	9	44.490	354	41.64	$\overline{22}$	56.041	155	22.09	34
	19	44.136	353	41.42	67	55.886	159	21.75	32
März	1	43.783	334	40.75	109	55.727	152	21.43	28
	11	43.449	297	39.66	145	55.575	136	21.15	22
	21	43.152	243	38.21	174	55.439	110	20.93	12
	31	42.909	176	36.47	196	55.329	77	20.81	$\underline{1}$
April	10	42.733	98	34.51	208	55.252	37	20.80	14
	20	42.635	14	32.43	212	55.215	$\overline{8}$	20.94	30
	30	42.621	$\overline{73}$	30.31	207	55.223	54	21.24	48
Mai	10	42.694	160	28.24	194	55.277	102	21.72	66
	20	42.854	243	26.30	174	55.379	147	22.38	84
	30	43.097	318	24.56	148	55.526	189	23.22	103
Juni	9	43.415	386	23.08	116	55.715	227	24.25	118
	19	43.801	442	21.92	83	55.942	258	25.43	131
	29	44.243	488	21.09	46	56.200	283	26.74	141
Juli	9	44.731	521	20.63	$\underline{7}$	56.483	301	28.15	146
	19	45.252	543	20.56	30	56.784	311	29.61	149
	29	45.795	552	20.86	67	57.095	316	31.10	146
Aug.	8	46.347	552	21.53	103	57.411	314	32.56	139
	18	46.899	542	22.56	135	57.725	307	33.95	129
	28	47.441	522	23.91	166	58.032	294	35.24	115
Sept.	7	47.963	495	25.57	192	58.326	278	36.39	99
	17	48.458	460	27.49	216	58.604	258	37.38	82
	27	48.918	420	29.65	236	58.862	237	38.20	63
Okt.	7	49.338	374	32.01	251	59.099	212	38.83	44
	17	49.712	322	34.52	262	59.311	186	39.27	28
	27	50.034	265	37.14	268	59.497	159	39.55	13
Nov.	6	50.299	203	39.82	269	59.656	129	39.68	$\overline{1}$
	15*)	[12] 50.502	137	42.51	264	[13] 59.785	97	39.67	11
	25	50.639	66	45.15	252	59.882	65	39.56	19
Dez.	5	50.705	$\overline{7}$	47.67	235	59.947	$\underline{29}$	39.37	24
	15	50.698	79	50.02	210	59.976	6	39.13	30
	25	50.619	149	52.12	179	59.970	40	38.83	32
	35	50.470		53.91		59.930		38.51	
Mittl. Ort		45.467		27.43		56.572		23.28	
sec δ, tg δ		1.986		+1.715		1.025		+0.226	
a, *a'*		+4.9		+12.6		+3.3		+12.3	
b, *b'*		+0.07		— 0.78		+0.01		— 0.79	

Tag		127) ε Eridani [1]) AR.		127) ε Eridani [1]) Dekl.		131) δ Persei AR.		131) δ Persei Dekl.	
1947		$3^h\ 30^m$		$-9°\ 37'$		$3^h\ 39^m$		$+47°\ 37'$	
		s		"		s		"	
Jan.	0	25.933	79	76.95	111	8.437	108	19.92	118
	10	25.854	107	78.06	91	8.329	157	21.10	88
	20	25.747	131	78.97	69	8.172	197	21.98	55
	30	25.616	150	79.66	46	7.975	228	22.53	19
Febr.	9	25.466	162	80.12	$\underline{21}$	7.747	246	22.72	$\overline{16}$
	19	25.304	164	80.33	4	7.501	252	22.56	51
März	1	25.140	158	80.29	31	7.249	243	22.05	83
	11	24.982	142	79.98	57	7.006	220	21.22	109
	21	24.840	117	79.41	82	6.786	182	20.13	132
	31	24.723	86	78.59	108	6.604	134	18.81	147
April	10	24.637	48	77.51	132	6.470	78	17.34	156
	20	24.589	5	76.19	156	6.392	$\underline{15}$	15.78	156
	30	24.584	$\overline{41}$	74.63	176	6.377	51	14.22	150
Mai	10	24.625	86	72.87	194	6.428	118	12.72	137
	20	24.711	131	70.93	209	6.546	183	11.35	120
	30	24.842	173	68.84	219	6.729	241	10.15	97
Juni	9	25.015	210	66.65	224	6.970	295	9.18	71
	19	25.225	241	64.41	224	7.265	341	8.47	42
	29	25.466	268	62.17	218	7.606	376	8.05	$\underline{13}$
Juli	9	25.734	286	59.99	206	7.982	404	7.92	17
	19	26.020	298	57.93	189	8.386	422	8.09	46
	29	26.318	304	56.04	166	8.808	432	8.55	74
Aug.	8	26.622	303	54.38	138	9.240	432	9.29	100
	18	26.925	295	53.00	107	9.672	426	10.29	123
	28	27.220	283	51.93	71	10.098	413	11.52	143
Sept.	7	27.503	267	51.22	$\underline{35}$	10.511	395	12.95	161
	17	27.770	247	50.87	1	10.906	370	14.56	175
	27	28.017	224	50.88	37	11.276	343	16.31	187
Okt.	7	28.241	199	51.25	68	11.619	310	18.18	195
	17	28.440	170	51.93	97	11.929	275	20.13	202
	27	28.610	142	52.90	119	12.204	234	22.15	203
Nov.	6	28.752	111	54.09	135	12.438	191	24.18	203
	15*)	[14] 28.863	79	55.44	145	12.629	143	26.21	198
	25	28.942	46	56.89	147	[16] 12.772	92	28.19	189
Dez.	5	28.988	$\underline{12}$	58.36	145	12.864	$\underline{38}$	30.08	175
	15	29.000	23	59.81	136	12.902	17	31.83	158
	25	28.977	55	61.17	122	12.885	71	33.41	134
	35	28.922		62.39		12.814		34.75	
Mittl. Ort		25.877		71.31		8.431		11.78	
sec δ, tg δ		1.014		—0.170		1.484		+1.096	
a, *a'*		+2.9		+12.2		+4.3		+11.6	
b, *b'*		—0.01		— 0.79		+0.04		— 0.82	

[1]) Die jährliche Parallaxe (0."305) ist bereits berücksichtigt.

*) Bei Stern 131) lies Nov. 16.

Tag	134) ν Persei AR.		134) ν Persei Dekl.		141) β Reticuli AR.		141) β Reticuli Dekl.		139) η Tauri AR.		139) η Tauri Dekl.		140) τ⁶ Eridani AR.		140) τ⁶ Eridani Dekl.	
1947	$3^h\ 41^m$		+42° 24′		$3^h\ 43^m$		−64° 57′		$3^h\ 44^m$		+23° 56′		$3^h\ 44^m$		−23° 23′	
	s		″		s		″		s		″		s		″	
Jan. 0	35.036	90	53.59	97	34.00	36	98.39	197	19.660	58	37.22	15	34.298	88	86.41	159
10	34.946	134	54.56	70	33.64	42	100.36	146	19.602	95	37.37	6	34.210	121	88.00	130
20	34.812	172	55.26	43	33.22	47	101.82	91	19.507	126	37.43	−6	34.089	148	89.30	96
30	34.640	201	55.69	12	32.75	50	102.73	33	19.381	152	37.37	17	33.941	170	90.26	59
Febr. 9	34.439	220	55.81	−18	32.25	51	103.06	−26	19.229	167	37.20	28	33.771	183	90.85	23
19	34.219	226	55.63	47	31.74	51	102.80	82	19.062	174	36.92	37	33.588	189	91.08	15
März 1	33.993	219	55.16	75	31.23	49	101.98	135	18.888	170	36.55	45	33.399	184	90.93	53
11	33.774	198	54.41	97	30.74	46	100.63	186	18.718	155	36.10	51	33.215	171	90.40	88
21	33.576	165	53.44	115	30.28	41	98.77	232	18.563	129	35.59	51	33.044	147	89.52	123
31	33.411	122	52.29	126	29.87	36	96.45	272	18.434	95	35.08	50	32.897	116	88.29	156
April 10	33.289	70	51.03	132	29.51	28	93.73	306	18.339	54	34.58	44	32.781	78	86.73	187
20	33.219	12	49.71	130	29.23	20	90.67	334	18.285	7	34.14	33	32.703	35	84.86	213
30	33.207	−48	48.41	124	29.03	12	87.33	355	18.278	−43	33.81	21	32.668	−11	82.73	236
Mai 10	33.255	110	47.17	110	28.91	2	83.78	367	18.321	93	33.60	4	32.679	59	80.37	255
20	33.365	169	46.07	92	28.89	−7	80.11	372	18.414	142	33.56	−14	32.738	107	77.82	268
30	33.534	225	45.15	70	28.96	16	76.39	367	18.556	188	33.70	32	32.845	152	75.14	275
Juni 9	33.759	273	44.45	46	29.12	24	72.72	355	18.744	229	34.02	51	32.997	193	72.39	277
19	34.032	315	43.99	20	29.36	32	69.17	333	18.973	263	34.53	70	33.190	229	69.62	270
29	34.347	348	43.79	−7	29.68	40	65.84	302	19.236	291	35.23	85	33.419	260	66.92	258
Juli 9	34.695	374	43.86	34	30.08	46	62.82	264	19.527	312	36.08	99	33.679	284	64.34	237
19	35.069	391	44.20	59	30.54	50	60.18	219	19.839	327	37.07	111	33.963	301	61.97	211
29	35.460	400	44.79	82	31.04	54	57.99	166	20.166	333	38.18	118	34.264	310	59.86	178
Aug. 8	35.860	400	45.61	104	31.58	56	56.33	108	20.499	333	39.36	122	34.574	314	58.08	140
18	36.260	395	46.65	122	32.14	57	55.25	48	20.832	329	40.58	123	34.888	310	56.68	97
28	36.655	383	47.87	138	32.71	55	54.77	−15	21.161	318	41.81	121	35.198	301	55.71	52
Sept. 7	37.038	365	49.25	151	33.26	52	54.92	78	21.479	304	43.02	116	35.499	287	55.19	4
17	37.403	344	50.76	161	33.78	49	55.70	139	21.783	286	44.18	108	35.786	268	55.15	−42
27	37.747	319	52.37	168	34.27	43	57.09	193	22.069	266	45.26	101	36.054	245	55.57	86
Okt. 7	38.066	290	54.05	173	34.70	36	59.02	242	22.335	242	46.27	91	36.299	218	56.43	127
17	38.356	257	55.78	176	35.06	29	61.44	281	22.577	216	47.18	81	36.517	189	57.70	162
27	38.613	222	57.54	176	35.35	20	64.25	309	22.793	188	47.99	72	36.706	157	59.32	189
Nov. 6	38.835	182	59.30	173	35.55	11	67.34	325	22.981	157	48.71	63	36.863	123	61.21	208
16	39.017	139	61.03	168	35.66	2	70.59	329	23.138	123	49.34	55	36.986	87	63.29	218
25	39.156	93	62.71	159	35.68	−7	73.88	320	23.261	87	49.89	47	37.073	50	65.47	220
Dez. 5	39.249	45	64.30	147	35.61	−17	77.08	300	23.348	49	50.36	39	37.123	12	67.67	214
15	39.294	−6	65.77	131	35.44	24	80.08	268	23.397	9	50.75	30	37.135	27	69.81	198
25	39.288	55	67.08	111	35.20	32	82.76	227	23.406	−30	51.05	22	37.108	64	71.79	176
35	39.233		68.19		34.88		85.03		23.376		51.27		37.044		73.55	
Mittl. Ort	35.063		46.48		31.65		83.90		19.725		34.11		33.975		78.39	
sec δ, tg δ	1.354		+0.914		2.364		−2.142		1.094		+0.444		1.090		−0.433	
a, *a′*	+4.1		+11.4		+0.7		+11.2		+3.6		+11.2		+2.6		+11.2	
b, *b′*	+0.03		−0.82		−0.08		−0.83		+0.02		−0.83		−0.02		−0.83	

Tag	138) γ Camelop. AR.		138) γ Camelop. Dekl.		143) 138 G. Eridani AR.		143) 138 G. Eridani Dekl.	
1947	$3^h\ 44^m$		$+71°\ 10'$		$3^h\ 47^m$		$-36°\ 21'$	
	s		"		s		"	
Jan. 0	44.42	32	29.66	215	28.778	122	45.12	187
10	44.10	41	31.81	173	28.656	158	46.99	149
20	43.69	50	33.54	124	28.498	188	48.48	106
30	43.19	55	34.78	71	28.310	211	49.54	60
Febr. 9	42.64	59	35.49	16	28.099	225	50.14	13
19	42.05	59	35.65	38	27.874	230	50.27	33
März 1	41.46	57	35.27	90	27.644	224	49.94	78
11	40.89	53	34.37	137	27.420	209	49.16	123
21	40.36	44	33.00	178	27.211	184	47.93	164
31	39.92	35	31.22	210	27.027	149	46.29	201
April 10	39.57	24	29.12	233	26.878	109	44.28	235
20	39.33	11	26.79	246	26.769	62	41.93	265
30	39.22	2	24.33	251	26.707	11	39.28	288
Mai 10	39.24	16	21.82	244	26.696	42	36.40	306
20	39.40	28	19.38	230	26.738	94	33.34	318
30	39.68	40	17.08	209	26.832	145	30.16	321
Juni 9	40.08	50	14.99	181	26.977	192	26.95	318
19	40.58	60	13.18	147	27.169	233	23.77	307
29	41.18	68	11.71	109	27.402	270	20.70	287
Juli 9	41.86	74	10.62	69	27.672	299	17.83	260
19	42.60	79	9.93	28	27.971	320	15.23	225
29	43.39	82	9.65	15	28.291	335	12.98	185
Aug. 8	44.21	82	9.80	57	28.626	340	11.13	138
18	45.03	83	10.37	98	28.966	339	9.75	87
28	45.86	80	11.35	137	29.305	330	8.88	33
Sept. 7	46.66	77	12.72	174	29.635	315	8.55	22
17	47.43	73	14.46	206	29.950	294	8.77	76
27	48.16	67	16.52	236	30.244	267	9.53	127
Okt. 7	48.83	61	18.88	262	30.511	235	10.80	172
17	49.44	53	21.50	282	30.746	201	12.52	211
27	49.97	44	24.32	298	30.947	162	14.63	240
Nov. 6	50.41	34	27.30	307	31.109	122	17.03	261
16	18 50.75	23	30.37	309	18 31.231	78	19.64	271
25	50.98	11	33.46	304	31.309	35	22.35	270
Dez. 5	51.09	0	36.50	290	31.344	10	25.05	258
15	51.09	12	39.40	268	31.334	54	27.63	238
25	50.97	24	42.08	238	31.280	96	30.01	210
35	50.73		44.46		31.184		32.11	
Mittl. Ort	43.58		18.27		28.153		34.74	
sec δ, tg δ	3.099		+2.933		1.242		−0.736	
a, *a'*	+6.3		+11.2		+2.2		+11.0	
b, *b'*	+0.11		− 0.83		−0.03		− 0.84	

Tag	146) γ Hydri AR.		146) γ Hydri Dekl.		1105) +57° 752 Caml AR.		1105) +57° 752 Caml Dekl.	
1947	$3^h\ 47^m$		$-74°\ 23'$		$3^h\ 49^m$		$+57°\ 49'$	
	s		"		s		"	
Jan. 0	66.68	64	81.14	194	24.404	145	20.38	168
10	66.04	72	83.08	141	24.259	208	22.06	132
20	65.32	80	84.49	86	24.051	262	23.38	92
30	64.52	84	85.35	27	23.789	302	24.30	50
Febr. 9	63.68	86	85.62	32	23.487	327	24.80	6
19	62.82	85	85.30	88	23.160	336	24.86	39
März 1	61.97	83	84.42	141	22.824	326	24.47	80
11	61.14	77	83.01	192	22.498	298	23.67	118
21	60.37	70	81.09	237	22.200	255	22.49	149
31	59.67	62	78.72	276	21.945	196	21.00	174
April 10	59.05	51	75.96	309	21.749	126	19.26	189
20	58.54	38	72.87	336	21.623	50	17.37	198
30	58.16	26	69.51	356	21.573	32	15.39	198
Mai 10	57.90	12	65.95	367	21.605	115	13.41	190
20	57.78	2	62.28	370	21.720	196	11.51	175
30	57.80	16	58.58	366	21.916	270	9.76	154
Juni 9	57.96	30	54.92	351	22.186	338	8.22	128
19	58.26	42	51.41	329	22.524	396	6.94	98
29	58.68	54	48.12	298	22.920	445	5.96	65
Juli 9	59.22	64	45.14	259	23.365	482	5.31	31
19	59.86	72	42.55	212	23.847	509	5.00	4
29	60.58	78	40.43	160	24.356	525	5.04	38
Aug. 8	61.36	83	38.83	102	24.881	530	5.42	72
18	62.19	83	37.81	40	25.411	527	6.14	103
28	63.02	83	37.41	22	25.938	515	7.17	132
Sept. 7	63.85	79	37.63	85	26.453	495	8.49	159
17	64.64	73	38.48	144	26.948	468	10.08	183
27	65.37	64	39.92	199	27.416	436	11.91	204
Okt. 7	66.01	53	41.91	247	27.852	396	13.95	220
17	66.54	42	44.38	285	28.248	352	16.15	235
27	66.96	27	47.23	313	28.600	301	18.50	244
Nov. 6	67.23	13	50.36	328	28.901	244	20.94	249
16	18 67.36	3	53.64	330	19 29.145	182	23.43	248
25	67.33	17	56.94	321	29.327	116	25.91	242
Dez. 5	67.16	32	60.15	299	29.443	45	28.33	230
15	66.84	46	63.14	266	29.488	26	30.63	212
25	66.38	57	65.80	225	29.462	98	32.75	186
35	65.81		68.05		29.364		34.61	
Mittl. Ort	62.27		66.49		24.159		10.78	
sec δ, tg δ	3.719		−3.582		1.878		+1.589	
a, *a'*	−0.9		+10.9		+4.9		+10.8	
b, *b'*	−0.13		− 0.84		+0.06		− 0.84	

Tag	144) ζ Persei AR.		144) ζ Persei Dekl.		147) ε Persei AR.		147) ε Persei Dekl.		148) ξ Persei AR.		148) ξ Persei Dekl.		149) γ Eridani AR.		149) γ Eridani Dekl.	
1947	3ʰ 50ᵐ		+31° 43′		3ʰ 54ᵐ		+39° 51′		3ʰ 55ᵐ		+35° 38′		3ʰ 55ᵐ		−13° 39′	
	s		″		s		″		s		″		s		″	
Jan. 0	47.621	61	45.25	53	17.381	71	37.62	91	31.154	63	30.94	73	33.510	64	34.21	137
10	47.560	101	45.78	37	17.310	116	38.53	70	31.091	105	31.67	53	33.446	98	35.58	114
20	47.459	137	46.15	18	17.194	156	39.23	44	30.986	143	32.20	33	33.348	126	36.72	89
30	47.322	164	46.33	0	17.038	186	39.67	18	30.843	173	32.53	11	33.222	150	37.61	61
Febr. 9	47.158	183	46.33	19	16.852	208	39.85	$\overline{9}$	30.670	193	32.64	$\overline{12}$	33.072	166	38.22	33
19	46.975	191	46.14	37	16.644	217	39.76	36	30.477	202	32.52	35	32.906	173	38.55	3
März 1	46.784	187	45.77	54	16.427	212	39.40	61	30.275	199	32.17	55	32.733	171	38.58	27
11	46.597	172	45.23	66	16.215	197	38.79	82	30.076	184	31.62	72	32.562	160	38.31	56
21	46.425	145	44.57	76	16.018	167	37.97	99	29.892	157	30.90	86	32.402	139	37.75	85
31	46.280	109	43.81	80	15.851	127	36.98	110	29.735	119	30.04	93	32.263	110	36.90	113
April 10	46.171	65	43.01	80	15.724	79	35.88	116	29.616	74	29.11	97	32.153	74	35.77	140
20	46.106	15	42.21	75	15.645	24	34.72	116	29.542	22	28.14	94	32.079	33	34.37	165
30	46.091	$\overline{38}$	41.46	65	15.621	34	33.56	109	29.520	33	27.20	87	32.046	$\overline{11}$	32.72	187
Mai 10	46.129	92	40.81	51	15.655	93	32.47	98	29.553	89	26.33	75	32.057	57	30.85	207
20	46.221	144	40.30	35	15.748	150	31.49	82	29.642	143	25.58	58	32.114	103	28.78	222
30	46.365	193	39.95	15	15.898	205	30.67	63	29.785	195	25.00	40	32.217	146	26.56	232
Juni 9	46.558	236	39.80	6	16.103	253	30.04	41	29.980	241	24.60	18	32.363	186	24.24	238
19	46.794	275	39.86	26	16.356	295	29.63	17	30.221	281	24.42	$\overline{3}$	32.549	221	21.86	237
29	47.069	306	40.12	47	16.651	329	29.46	$\overline{7}$	30.502	314	24.45	26	32.770	250	19.49	232
Juli 9	47.375	328	40.59	65	16.980	356	29.53	31	30.816	339	24.71	46	33.020	273	17.17	218
19	47.703	345	41.24	83	17.336	374	29.84	54	31.155	356	25.17	66	33.293	289	14.99	199
29	48.048	353	42.07	96	17.710	384	30.38	75	31.511	366	25.83	83	33.582	300	13.00	174
Aug. 8	48.401	355	43.03	108	18.094	388	31.13	93	31.877	370	26.66	99	33.882	304	11.26	144
18	48.756	351	44.11	117	18.482	384	32.06	110	32.247	366	27.65	110	34.186	301	9.82	110
28	49.107	342	45.28	122	18.866	375	33.16	123	32.613	357	28.75	120	34.487	294	8.72	71
Sept. 7	49.449	328	46.50	125	19.241	361	34.39	134	32.970	343	29.95	127	34.781	282	8.01	32
17	49.777	310	47.75	126	19.602	343	35.73	142	33.313	326	31.22	132	35.063	266	7.69	9
27	50.087	288	49.01	125	19.945	319	37.15	149	33.639	305	32.54	134	35.329	246	7.78	48
Okt. 7	50.375	265	50.26	121	20.264	294	38.64	152	33.944	281	33.88	134	35.575	223	8.26	84
17	50.640	238	51.47	118	20.558	264	40.16	155	34.225	253	35.22	134	35.798	197	9.10	116
27	50.878	208	52.65	114	20.822	231	41.71	155	34.478	221	36.56	132	35.995	170	10.26	141
Nov. 6	51.086	175	53.79	107	21.053	194	43.26	153	34.699	187	37.88	129	36.165	139	11.67	161
16	51.261	138	54.86	101	21.247	153	44.79	150	34.886	149	39.17	124	36.304	106	13.28	172
25	51.399	99	55.87	94	21.400	109	46.29	142	35.035	108	40.41	117	36.410	71	15.00	177
Dez. 5	51.498	57	56.81	85	21.509	62	47.71	133	35.143	63	41.58	108	36.481	35	16.77	174
15	51.555	14	57.66	74	21.571	13	49.04	120	35.206	16	42.66	97	36.516	$\overline{2}$	18.51	164
25	51.569	$\overline{31}$	58.40	62	21.584	$\overline{37}$	50.24	103	35.222	$\overline{30}$	43.63	82	36.514	39	20.15	149
35	51.538		59.02		21.547		51.27		35.192		44.45		36.475		21.64	
Mittl. Ort	47.652		40.43		17.363		31.19		31.152		25.35		33.287		28.85	
sec δ, tg δ	1.176		+0.618		1.303		+0.835		1.230		+0.717		1.029		−0.243	
a, *a′*	+3.8		+10.7		+4.0		+10.5		+3.9		+10.4		+2.8		+10.4	
b, *b′*	+0.02		−0.85		+0.03		−0.85		+0.02		−0.86		−0.01		−0.86	

Scheinbare Sternörter 1947

Tag	150) λ Tauri				151) ν Tauri				153) 174 G. Eridani				152) 48 Persei			
	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1947	$3^h\ 57^m$		$+12°\ 20'$		$4^h\ 0^m$		$+5°\ 50'$		$4^h\ 3^m$		$-27°\ 47'$		$4^h\ 4^m$		$+47°\ 34'$	
	s		″		s		″		s		″		s		″	
Jan. 0	44.428	45	32.00	34	20.069	44	36.67	64	26.771	85	52.02	182	48.391	79	30.55	132
10	44.383	80	31.66	34	20.025	79	36.03	56	26.686	121	53.84	149	48.312	132	31.87	106
20	44.303	112	31.32	32	19.946	110	35.47	49	26.565	153	55.33	114	48.180	179	32.93	77
30	44.191	138	31.00	31	19.836	136	34.98	41	26.412	178	56.47	74	48.001	217	33.70	43
Febr. 9	44.053	155	30.69	28	19.700	153	34.57	31	26.234	195	57.21	33	47.784	242	34.13	9
19	43.898	163	30.41	26	19.547	162	34.26	21	26.039	203	57.54	7	47.542	254	34.22	25
März 1	43.735	162	30.15	21	19.385	161	34.05	10	25.836	202	57.47	49	47.288	252	33.97	58
11	43.573	151	29.94	15	19.224	150	33.95	2	25.634	191	56.98	88	47.036	235	33.39	87
21	43.422	130	29.79	7	19.074	130	33.97	16	25.443	170	56.10	126	46.801	203	32.52	112
31	43.292	99	29.72	$\overline{3}$	18.944	101	34.13	31	25.273	140	54.84	162	46.598	161	31.40	131
April 10	43.193	62	29.75	15	18.843	65	34.44	47	25.133	103	53.22	195	46.437	107	30.09	143
20	43.131	20	29.90	30	18.778	24	34.91	65	25.030	60	51.27	224	46.330	46	28.66	149
30	43.111	$\overline{26}$	30.20	46	18.754	$\overline{21}$	35.56	82	24.970	13	49.03	249	46.284	$\overline{18}$	27.17	148
Mai 10	43.137	74	30.66	62	18.775	67	36.38	99	24.957	$\overline{35}$	46.54	269	46.302	84	25.69	141
20	43.211	119	31.28	78	18.842	112	37.37	116	24.992	83	43.85	283	46.386	149	24.28	128
30	43.330	163	32.06	95	18.954	155	38.53	131	25.075	131	41.02	291	46.535	211	23.00	110
Juni 9	43.493	202	33.01	108	19.109	194	39.84	142	25.206	175	38.11	293	46.746	267	21.90	88
19	43.695	236	34.09	121	19.303	227	41.26	151	25.381	214	35.18	287	47.013	315	21.02	63
29	43.931	265	35.30	129	19.530	256	42.77	157	25.595	248	32.31	274	47.328	356	20.39	37
Juli 9	44.196	286	36.59	135	19.786	278	44.34	157	25.843	276	29.57	253	47.684	388	20.02	9
19	44.482	301	37.94	136	20.064	293	45.91	153	26.119	297	27.04	225	48.072	411	19.93	18
29	44.783	310	39.30	133	20.357	303	47.44	145	26.416	310	24.79	190	48.483	426	20.11	44
Aug. 8	45.093	312	40.63	126	20.660	305	48.89	132	26.726	318	22.89	150	48.909	432	20.55	69
18	45.405	310	41.89	116	20.965	303	50.21	115	27.044	318	21.39	105	49.341	432	21.24	92
28	45.715	302	43.05	102	21.268	296	51.36	94	27.362	313	20.34	56	49.773	424	22.16	113
Sept. 7	46.017	290	44.07	85	21.564	285	52.30	73	27.675	301	19.78	6	50.197	411	23.29	131
17	46.307	275	44.92	68	21.849	271	53.03	48	27.976	285	19.72	44	50.608	392	24.60	147
27	46.582	257	45.60	49	22.120	252	53.51	24	28.261	263	20.16	93	51.000	369	26.07	160
Okt. 7	46.839	237	46.09	32	22.372	233	53.75	1	28.524	238	21.09	137	51.369	341	27.67	172
17	47.076	213	46.41	14	22.605	209	53.76	$\overline{19}$	28.762	209	22.46	175	51.710	308	29.39	180
27	47.289	187	46.55	0	22.814	184	53.57	38	28.971	177	24.21	205	52.018	271	31.19	187
Nov. 6	47.476	159	46.55	12	22.998	155	53.19	52	29.148	142	26.26	228	52.289	229	33.06	190
16	$_{21}$47.635	127	46.43	21	$_{21}$23.153	125	52.67	62	$_{22}$29.290	104	28.54	241	$_{23}$52.518	182	34.96	189
25	47.762	94	46.22	28	23.278	92	52.05	68	29.394	65	30.95	244	52.700	132	36.85	186
Dez. 5	47.856	58	45.94	33	23.370	56	51.37	71	29.459	23	33.39	238	52.832	76	38.71	176
15	47.914	20	45.61	34	23.426	19	50.66	71	29.482	$\overline{17}$	35.77	223	52.908	18	40.47	164
25	47.934	$\overline{19}$	45.27	35	23.445	$\overline{18}$	49.95	66	29.465	59	38.00	200	52.926	$\overline{39}$	42.11	146
35	47.915		44.92		23.427		49.29		29.406		40.00		52.887		43.57	
Mittl. Ort	44.410		31.45		20.008		37.53		26.281		44.23		48.246		22.94	
sec δ, tg δ	1.024		+0.219		1.005		+0.102		1.130		−0.527		1.482		+1.094	
a, *a′*	+3.3		+10.2		+3.2		+10.0		+2.5		+9.8		+4.4		+9.7	
b, *b′*	+0.01		− 0,86		0.00		− 0.87		−0.02		−0.87		+0.04		−0.88	

Obere Kulmination Greenwich

Tag		154) o^1 Eridani AR.		154) o^1 Eridani Dekl.		155) α Horologii AR.		155) α Horologii Dekl.		156) α Reticuli AR.		156) α Reticuli Dekl.		162) δ Tauri AR.		162) δ Tauri Dekl.	
1947		$4^h\ 9^m$		−6° 58′		$4^h\ 12^m$		−42° 24′		$4^h\ 13^m$		−62° 35′		$4^h\ 19^m$		+17° 25′	
		s		″		s		″		s		″		s		″	
Jan.	0	16.757	47	31.17	118	15.550	128	96.19	220	46.53	29	93.46	234	52.552	28	13.34	10
	10	16.710	82	32.35	100	15.422	171	98.39	180	46.24	35	95.80	188	52.524	68	13.24	13
	20	16.628	114	33.35	81	15.251	207	100.19	135	45.89	41	97.68	135	52.456	103	13.11	14
	30	16.514	139	34.16	60	15.044	237	101.54	87	45.48	44	99.03	80	52.353	133	12.97	16
Febr.	9	16.375	158	34.76	37	14.807	256	102.41	37	45.04	48	99.83	23	52.220	156	12.81	19
	19	16.217	168	35.13	14	14.551	266	102.78	$\overline{13}$	44.56	47	100.06	$\overline{34}$	52.064	169	12.62	21
März	1	16.049	168	35.27	$\overline{10}$	14.285	265	102.65	63	44.09	48	99.72	89	51.895	170	12.41	22
	11	15.881	159	35.17	33	14.020	252	102.02	110	43.61	45	98.83	141	51.725	163	12.19	22
	21	15.722	140	34.84	58	13.768	229	100.92	156	43.16	42	97.42	190	51.562	144	11.97	19
	31	15.582	114	34.26	83	13.539	197	99.36	197	42.74	37	95.52	235	51.418	116	11.78	15
April	10	15.468	79	33.43	105	13.342	156	97.39	235	42.37	31	93.17	273	51.302	81	11.63	8
	20	15.389	39	32.38	129	13.186	108	95.04	267	42.06	24	90.44	307	51.221	38	11.55	$\overline{3}$
	30	15.350	$\overline{5}$	31.09	150	13.078	55	92.37	294	41.82	16	87.37	333	51.183	$\overline{8}$	11.58	14
Mai	10	15.355	49	29.59	168	13.023	0	89.43	315	41.66	8	84.04	352	51.191	55	11.72	28
	20	15.404	94	27.91	185	13.023	56	86.28	328	41.58	$\overline{1}$	80.52	363	51.246	103	12.00	43
	30	15.498	138	26.06	197	13.079	112	83.00	335	41.59	9	76.89	366	51.349	148	12.43	57
Juni	9	15.636	177	24.09	205	13.191	164	79.65	334	41.68	17	73.23	360	51.497	189	13.00	72
	19	15.813	212	22.04	209	13.355	212	76.31	324	41.85	25	69.63	345	51.686	226	13.72	84
	29	16.025	241	19.95	206	13.567	255	73.07	304	42.10	32	66.18	321	51.912	256	14.56	96
Juli	9	16.266	265	17.89	199	13.822	291	70.03	279	42.42	39	62.97	289	52.168	281	15.52	103
	19	16.531	283	15.90	186	14.113	321	67.24	244	42.81	44	60.08	248	52.449	300	16.55	109
	29	16.814	294	14.04	166	14.434	341	64.80	202	43.25	47	57.60	199	52.749	311	17.64	109
Aug.	8	17.108	300	12.38	142	14.775	354	62.78	153	43.72	51	55.61	145	53.060	317	18.73	108
	18	17.408	299	10.96	114	15.129	358	61.25	101	44.23	52	54.16	86	53.377	318	19.81	102
	28	17.707	293	9.82	81	15.487	356	60.24	44	44.75	51	53.30	23	53.695	314	20.83	94
Sept.	7	18.000	284	9.01	47	15.843	345	59.80	$\overline{15}$	45.26	51	53.07	$\overline{41}$	54.009	305	21.77	82
	17	18.284	270	8.54	12	16.188	327	59.95	73	45.77	48	53.48	103	54.314	293	22.59	70
	27	18.554	253	8.42	$\overline{23}$	16.515	302	60.68	128	46.25	43	54.51	163	54.607	278	23.29	57
Okt.	7	18.807	233	8.65	55	16.817	272	61.96	178	46.68	39	56.14	216	54.885	260	23.86	43
	17	19.040	210	9.20	85	17.089	236	63.74	222	47.07	32	58.30	261	55.145	238	24.29	30
	27	19.250	184	10.05	109	17.325	195	65.96	257	47.39	25	60.91	297	55.383	214	24.59	19
Nov.	6	19.434	155	11.14	127	17.520	151	68.53	282	47.64	17	63.88	321	55.597	187	24.78	10
	16	[24] 19.589	125	12.41	139	[24] 17.671	103	71.35	295	47.81	8	67.09	332	55.784	155	24.88	3
	25*)	19.714	90	13.80	145	17.774	53	74.30	299	[25] 47.89	1	70.41	333	55.939	121	24.91	$\overline{3}$
Dez.	5	19.804	54	15.25	144	17.827	3	77.29	289	47.90	$\overline{9}$	73.74	319	[26] 56.060	82	24.88	6
	15	19.858	17	16.69	139	17.830	$\overline{48}$	80.18	270	47.81	17	76.93	295	56.142	43	24.82	8
	25	19.875	$\overline{21}$	18.08	127	17.782	98	82.88	242	47.64	24	79.88	261	56.185	1	24.74	10
	35	19.854		19.35		17.684		85.30		47.40		82.49		56.186		24.64	
Mittl. Ort		16.560		27.79		14.601		86.68		44.20		81.91		52.470		11.46	
sec δ, tg δ		1.007		−0.122		1.355		−0.914		2.173		−1.930		1.048		+0.314	
a, a'		+2.9		+9.3		+2.0		+9.1		+0.8		+9.0		+3.5		+8.5	
b, b'		0.00		−0.89		−0.03		−0.89		−0.06		−0.89		+0.01		−0.91	

*) Bei Stern 162) lies Nov. 26.

Tag	164) ε Tauri				171) α Doradus				168) α Tauri				169) ν Eridani			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$4^h\ 25^m$		$+19°\ 3'$		$4^h\ 32^m$		$-55°\ 8'$		$4^h\ 32^m$		$+16°\ 24'$		$4^h\ 33^m$		$-3°\ 27'$	
	s		"		s		"		s		"		s		"	
Jan. 0	31.175	24	54.68	2	52.634	185	83.02	253	52.702	17	17.56	16	40.353	25	35.49	112
10	31.151	64	54.66	4	52.449	243	85.55	211	52.685	58	17.40	16	40.328	65	36.61	97
20	31.087	101	54.62	8	52.206	292	87.66	163	52.627	96	17.24	15	40.263	99	37.58	80
30	30.986	133	54.54	11	51.914	331	89.29	111	52.531	128	17.09	17	40.164	129	38.38	62
Febr. 9	30.853	156	54.43	15	51.583	359	90.40	56	52.403	152	16.92	17	40.035	153	39.00	42
19	30.697	170	54.28	19	51.224	374	90.96	2	52.251	168	16.75	17	39.882	166	39.42	22
März 1	30.527	174	54.09	22	50.850	376	90.98	53	52.083	172	16.58	18	39.716	170	39.64	2
11	30.353	166	53.87	23	50.474	364	90.45	106	51.911	166	16.40	17	39.546	166	39.66	20
21	30.187	148	53.64	22	50.110	339	89.39	155	51.745	150	16.23	14	39.380	150	39.46	41
31	30.039	121	53.42	20	49.771	304	87.84	201	51.595	124	16.09	9	39.230	126	39.05	62
April 10	29.918	85	53.22	15	49.467	257	85.83	243	51.471	89	16.00	2	39.104	95	38.43	83
20	29.833	43	53.07	6	49.210	201	83.40	279	51.382	49	15.98	7	39.009	56	37.60	104
30	29.790	3	53.01	5	49.009	139	80.61	309	51.333	5	16.05	19	38.953	14	36.56	124
Mai 10	29.793	51	53.06	18	48.870	73	77.52	332	51.328	43	16.24	31	38.939	29	35.32	143
20	29.844	98	53.24	31	48.797	3	74.20	348	51.371	90	16.55	45	38.968	74	33.89	159
30	29.942	144	53.55	46	48.794	67	70.72	356	51.461	135	17.00	59	39.042	118	32.30	172
Juni 9	30.086	186	54.01	60	48.861	134	67.16	355	51.596	176	17.59	72	39.160	158	30.58	181
19	30.272	224	54.61	73	48.995	198	63.61	346	51.772	213	18.31	84	39.318	194	28.77	187
29	30.496	255	55.34	85	49.193	258	60.15	327	51.985	246	19.15	93	39.512	225	26.90	187
Juli 9	30.751	280	56.19	93	49.451	310	56.88	300	52.231	271	20.08	101	39.737	251	25.03	183
19	31.031	299	57.12	99	49.761	354	53.88	264	52.502	291	21.09	104	39.988	272	23.20	173
29	31.330	313	58.11	103	50.115	389	51.24	220	52.793	305	22.13	105	40.260	285	21.47	157
Aug. 8	31.643	319	59.14	101	50.504	414	49.04	168	53.098	313	23.18	101	40.545	294	19.90	137
18	31.962	321	60.15	97	50.918	430	47.36	113	53.411	315	24.19	95	40.839	297	18.53	111
28	32.283	317	61.12	90	51.348	433	46.23	51	53.726	313	25.14	86	41.136	296	17.42	83
Sept. 7	32.600	309	62.02	82	51.781	428	45.72	11	54.039	307	26.00	73	41.432	290	16.59	52
17	32.909	299	62.84	70	52.209	410	45.83	74	54.346	297	26.73	60	41.722	279	16.07	19
27	33.208	284	63.54	58	52.619	384	46.57	134	54.643	284	27.33	46	42.001	267	15.88	13
Okt. 7	33.492	266	64.12	46	53.003	347	47.91	191	54.927	267	27.79	31	42.268	250	16.01	43
17	33.758	246	64.58	36	53.350	301	49.82	239	55.194	247	28.10	19	42.518	230	16.44	72
27	34.004	222	64.94	25	53.651	249	52.21	278	55.441	225	28.29	7	42.748	207	17.16	96
Nov. 6	34.226	194	65.19	17	53.900	190	54.99	308	55.666	197	28.36	2	42.955	180	18.12	113
16	34.420	163	65.36	11	54.090	126	58.07	326	55.863	168	28.34	8	43.135	150	19.25	126
26	34.583	128	65.47	6	54.216	58	61.33	331	56.031	133	28.26	13	43.285	117	20.51	133
Dez. 5	^{28}34.711	89	65.53	3	^{30}54.274	11	64.64	323	^{30}56.164	95	28.13	16	^{30}43.402	81	21.84	134
15	34.800	49	65.56	1	54.263	80	67.87	305	56.259	55	27.97	17	43.483	41	23.18	130
25	34.849	6	65.57	2	54.183	145	70.92	277	56.314	12	27.80	17	43.524	2	24.48	120
35	34.855		65.55		54.038		73.69		56.326		27.63		43.526		25.68	
Mittl. Ort	31.076		52.45		50.894		73.85		52.574		15.78		40.110		33.69	
sec δ, tg δ	1.058		+0.346		1.750		−1.436		1.042		+0.294		1.002		−0.060	
a, *a'*	+3.5		+8.0		+1.3		+7.4		+3.4		+7.4		+3.0		+7.4	
b, *b'*	+0.01		−0.92		−0.04		−0.93		+0.01		−0.93		0.00		−0.93	

Tag	172) 53 Eridani AR.		172) 53 Eridani Dekl.		174) τ Tauri AR.		174) τ Tauri Dekl.		173) Grb 848 Caml AR.		173) Grb 848 Caml Dekl.		175) 4 Camelopard. AR.		175) 4 Camelopard. Dekl.	
1947	$4^h\ 35^m$		$-14°\ 24'$		$4^h\ 39^m$		$+22°\ 51'$		$4^h\ 41^m$		$+75°\ 50'$		$4^h\ 43^m$		$+56°\ 39'$	
	s		″		s		″		s		″		s		″	
Jan. 0	45.470	37	26.35	159	3.741	12	28.22	19	41.98	25	64.59	271	35.273	55	63.64	192
10	45.433	76	27.94	137	3.729	57	28.41	14	41.73	41	67.30	239	35.218	129	65.56	169
20	45.357	111	29.31	112	3.672	96	28.55	9	41.32	55	69.69	198	35.089	195	67.25	138
30	45.246	141	30.43	83	3.576	131	28.64	3	40.77	66	71.67	150	34.894	251	68.63	103
Febr. 9	45.105	164	31.26	54	3.445	157	28.67	—4	40.11	75	73.17	97	34.643	293	69.66	64
19	44.941	178	31.80	23	3.288	174	28.63	11	39.36	79	74.14	41	34.350	319	70.30	22
März 1	44.763	182	32.03	—7	3.114	180	28.52	19	38.57	81	74.55	—15	34.031	328	70.52	—19
11	44.581	178	31.96	39	2.934	175	28.33	24	37.76	77	74.40	70	33.703	319	70.33	58
21	44.403	162	31.57	68	2.759	159	28.09	28	36.99	72	73.70	120	33.384	291	69.75	95
31	44.241	139	30.89	98	2.600	132	27.81	30	36.27	62	72.50	165	33.093	248	68.80	127
April 10	44.102	107	29.91	125	2.468	97	27.51	28	35.65	50	70.85	202	32.845	192	67.53	152
20	43.995	69	28.66	152	2.371	56	27.23	24	35.15	35	68.83	231	32.653	124	66.01	170
30	43.926	27	27.14	176	2.315	10	26.99	15	34.80	19	66.52	250	32.529	50	64.31	181
Mai 10	43.899	—18	25.38	196	2.305	—39	26.84	6	34.61	3	64.02	260	32.479	—27	62.50	185
20	43.917	63	23.42	214	2.344	88	26.78	—5	34.58	—14	61.42	260	32.506	106	60.65	182
30	43.980	107	21.28	227	2.432	135	26.83	19	34.72	30	58.82	253	32.612	182	58.83	171
Juni 9	44.087	148	19.01	233	2.567	178	27.02	33	35.02	46	56.29	238	32.794	254	57.12	157
19	44.235	186	16.68	236	2.745	218	27.35	46	35.48	61	53.91	215	33.048	318	55.55	136
29	44.421	219	14.32	232	2.963	251	27.81	58	36.09	73	51.76	187	33.366	374	54.19	113
Juli 9	44.640	247	12.00	221	3.214	278	28.39	69	36.82	84	49.89	154	33.740	422	53.06	86
19	44.887	268	9.79	204	3.492	299	29.08	77	37.66	94	48.35	117	34.162	460	52.20	58
29	45.155	284	7.75	180	3.791	315	29.85	82	38.60	100	47.18	78	34.622	488	51.62	29
Aug. 8	45.439	294	5.95	152	4.106	323	30.67	84	39.60	105	46.40	38	35.110	508	51.33	—1
18	45.733	299	4.43	117	4.429	328	31.51	84	40.65	108	46.02	—4	35.618	517	51.34	29
28	46.032	298	3.26	79	4.757	326	32.35	81	41.73	110	46.06	46	36.135	521	51.63	58
Sept. 7	46.330	293	2.47	39	5.083	321	33.16	76	42.83	109	46.52	86	36.656	515	52.21	85
17	46.623	282	2.08	—4	5.404	311	33.92	68	43.92	106	47.38	127	37.171	502	53.06	111
27	46.905	268	2.12	45	5.715	299	34.60	61	44.98	101	48.65	164	37.673	483	54.17	134
Okt. 7	47.173	252	2.57	83	6.014	283	35.21	53	45.99	96	50.29	200	38.156	456	55.51	157
17	47.425	230	3.40	118	6.297	263	35.74	45	46.95	87	52.29	231	38.612	424	57.08	176
27	47.655	205	4.58	148	6.560	240	36.19	38	47.82	77	54.60	260	39.036	383	58.84	193
Nov. 6	47.860	176	6.06	170	6.800	213	36.57	33	48.59	65	57.20	282	39.419	335	60.77	208
16	48.036	145	7.76	186	7.013	181	36.90	29	49.24	51	60.02	300	39.754	279	62.85	217
26	48.181	110	9.62	193	[1] 7.194	146	37.19	25	[2] 49.75	37	63.02	309	[2] 40.033	216	65.02	222
Dez. 5	[30] 48.291	72	11.55	193	7.340	106	37.44	24	50.12	20	66.11	310	40.249	147	67.24	223
15	48.363	32	13.48	185	7.446	64	37.68	21	50.32	4	69.21	302	40.396	73	69.47	216
25	48.395	—9	15.33	172	7.510	20	37.89	20	50.36	—14	72.23	286	40.469	—4	71.63	203
35	48.386		17.05		7.530		38.09		50.22		75.09		40.465		73.66	
Mittl. Ort	45.095		22.74		3.601		25.28		39.83		55.08		34.732		55.91	
sec δ, tg δ	1.032		—0.257		1.085		+0.422		4.090		+3.966		1.820		+1.520	
a, *a′*	+2.8		+7.2		+3.6		+6.9		+8.1		+6.7		+5.0		+6.6	
b, *b′*	—0.01		—0.93		+0.01		—0.94		+0.09		—0.94		+0.03		—0.94	

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Tag	178) α Camelopard. AR.	Δ	Dekl.	Δ	180) π^5 Orionis AR.	Δ	Dekl.	Δ	181) ι Aurigae AR.	Δ	Dekl.	Δ	183) ε Aurigae AR.	Δ	Dekl.	Δ
1947	$4^h\ 48^m$		+66° 15′		$4^h\ 51^m$		+2° 21′		$4^h\ 53^m$		+33° 5′		$4^h\ 58^m$		+43° 44′	
	s		″		s		″		s		″		s		″	
Jan. 0	46.94	10	28.84	238	29.529	7	19.37	89	32.477	2	7.24	75	9.950	6	55.04	133
10	46.84	19	31.22	210	29.522	48	18.48	78	32.475	52	7.99	66	9.944	65	56.37	119
20	46.65	29	33.32	176	29.474	86	17.70	66	32.423	99	8.65	55	9.879	118	57.56	100
30	46.36	36	35.08	135	29.388	119	17.04	52	32.324	139	9.20	40	9.761	165	58.56	77
Febr. 9	46.00	42	36.43	89	29.269	146	16.52	37	32.185	170	9.60	23	9.596	203	59.33	51
19	45.58	46	37.32	40	29.123	162	16.15	23	32.015	192	9.83	6	9.393	227	59.84	22
März 1	45.12	46	37.72	10	28.961	170	15.92	8	31.823	201	9.89	12	9.166	239	60.06	6
11	44.66	46	37.62	57	28.791	168	15.84	7	31.622	198	9.77	29	8.927	236	60.00	35
21	44.20	42	37.05	102	28.623	155	15.91	23	31.424	183	9.48	44	8.691	219	59.65	60
31	43.78	36	36.03	142	28.468	133	16.14	40	31.241	156	9.04	56	8.472	188	59.05	82
April 10	43.42	29	34.61	174	28.335	103	16.54	56	31.085	119	8.48	64	8.284	148	58.23	100
20	43.13	20	32.87	199	28.232	66	17.10	74	30.966	76	7.84	68	8.136	98	57.23	112
30	42.93	11	30.88	216	28.166	26	17.84	90	30.890	26	7.16	68	8.038	41	56.11	119
Mai 10	42.82	0	28.72	224	28.140	18	18.74	107	30.864	27	6.48	64	7.997	18	54.92	120
20	42.82	11	26.48	224	28.158	63	19.81	121	30.891	79	5.84	56	8.015	78	53.72	116
30	42.93	20	24.24	217	28.221	106	21.02	135	30.970	130	5.28	46	8.093	138	52.56	108
Juni 9	43.13	31	22.07	203	28.327	146	22.37	146	31.100	179	4.82	33	8.231	193	51.48	95
19	43.44	39	20.04	183	28.473	183	23.83	152	31.279	222	4.49	18	8.424	244	50.53	80
29	43.83	47	18.21	158	28.656	216	25.35	156	31.501	260	4.31	4	8.668	288	49.73	62
Juli 9	44.30	54	16.63	129	28.872	243	26.91	155	31.761	293	4.27	11	8.956	326	49.11	43
19	44.84	59	15.34	96	29.115	265	28.46	149	32.054	317	4.38	25	9.282	356	48.68	23
29	45.43	63	14.38	63	29.380	281	29.95	138	32.371	336	4.63	37	9.638	379	48.45	4
Aug. 8	46.06	67	13.75	28	29.661	291	31.33	123	32.707	348	5.00	47	10.017	396	48.41	15
18	46.73	68	13.47	8	29.952	296	32.56	103	33.055	355	5.47	57	10.413	404	48.56	33
28	47.41	69	13.55	43	30.248	298	33.59	81	33.410	357	6.04	64	10.817	408	48.89	50
Sept. 7	48.10	69	13.98	77	30.546	295	34.40	55	33.767	354	6.68	68	11.225	406	49.39	65
17	48.79	67	14.75	112	30.841	287	34.95	27	34.121	346	7.36	72	11.631	398	50.04	79
27	49.46	65	15.87	143	31.128	277	35.22	0	34.467	336	8.08	75	12.029	387	50.83	93
Okt. 7	50.11	61	17.30	172	31.405	264	35.22	26	34.803	320	8.83	77	12.416	369	51.76	104
17	50.72	56	19.02	200	31.669	246	34.96	51	35.123	300	9.60	78	12.785	348	52.80	116
27	51.28	51	21.02	223	31.915	225	34.45	71	35.423	277	10.38	80	13.133	320	53.96	125
Nov. 6	51.79	45	23.25	243	32.140	200	33.74	87	35.700	248	11.18	81	13.453	287	55.21	134
16	52.24	36	25.68	259	32.340	172	32.87	98	35.948	214	11.99	83	13.740	247	56.55	141
26	52.60	28	28.27	267	32.512	139	31.89	105	36.162	175	12.82	84	13.987	201	57.96	146
Dez. 5*)	[4] 52.88	18	30.94	269	[4] 32.651	102	30.84	106	[5] 36.337	132	13.66	84	14.188	151	59.42	148
15	53.06	8	33.63	263	32.753	63	29.78	103	36.469	84	14.50	82	[6] 14.339	94	60.90	145
25	53.14	3	36.26	250	32.816	22	28.75	96	36.553	33	15.32	78	14.433	35	62.35	138
35	53.11		38.76		32.838		27.79		36.586		16.10		14.468		63.73	
Mittl. Ort	45.90		20.37		29.283		19.67		32.263		2.82		9.622		49.30	
sec δ, tg δ	2.484		+2.273		1.001		+0.041		1.194		+0.651		1.384		+0.957	
a, *a′*	+6.0		+6.1		+3.1		+5.9		+3.9		+5.7		+4.3		+5.3	
b, *b′*	+0.05		−0.95		0.00		−0.96		+0.01		−0.96		+0.02		−0.96	

*) Bei Stern 183) lies Dez. 6.

Tag	182) β Camelopard. AR.		182) Dekl.		184) ι Tauri AR.		184) Dekl.		185) η Aurigae AR.		185) Dekl.		186) ε Leporis AR.		186) Dekl.	
1947	$4^h\ 58^m$		$+60°\ 21'$		$4^h\ 59^m$		$+21°\ 30'$		$5^h\ 2^m$		$+41°\ 9'$		$5^h\ 3^m$		$-22°\ 26'$	
	s		"		s		"		s		"		s		"	
Jan. 0	42.35	4	70.34	216	55.664	7	60.57	11	47.899	3	59.12	121	13.538	26	30.54	205
10	42.31	13	72.50	194	55.671	39	60.68	11	47.902	55	60.33	108	13.512	71	32.59	179
20	42.18	20	74.44	164	55.632	81	60.79	9	47.847	107	61.41	92	13.441	110	34.38	149
30	41.98	27	76.08	128	55.551	119	60.88	5	47.740	153	62.33	72	13.331	145	35.87	115
Febr. 9	41.71	33	77.36	88	55.432	149	60.93	2	47.587	190	63.05	48	13.186	173	37.02	79
19	41.38	35	78.24	45	55.283	169	60.95	4	47.397	215	63.53	23	13.013	191	37.81	43
März 1	41.03	37	78.69	0	55.114	179	60.91	10	47.182	227	63.76	4	12.822	201	38.24	5
11	40.66	36	78.69	44	54.935	178	60.81	14	46.955	226	63.72	29	12.621	200	38.29	33
21	40.30	34	78.25	84	54.757	166	60.67	18	46.729	210	63.43	52	12.421	188	37.96	69
31	39.96	30	77.41	120	54.591	142	60.49	19	46.519	183	62.91	73	12.233	169	37.27	105
April 10	39.66	24	76.21	151	54.449	110	60.30	18	46.336	144	62.18	88	12.064	139	36.22	137
20	39.42	17	74.70	173	54.339	72	60.12	14	46.192	96	61.30	99	11.925	103	34.85	169
30	39.25	9	72.97	190	54.267	28	59.98	9	46.096	43	60.31	106	11.822	63	33.16	196
Mai 10	39.16	0	71.07	199	54.239	19	59.89	0	46.053	14	59.25	106	11.759	18	31.20	221
20	39.16	9	69.08	199	54.258	67	59.89	10	46.067	73	58.19	103	11.741	28	28.99	240
30	39.25	16	67.09	193	54.325	114	59.99	21	46.140	129	57.16	94	11.769	73	26.59	254
Juni 9	39.41	25	65.16	181	54.439	158	60.20	32	46.269	182	56.22	83	11.842	116	24.05	263
19	39.66	32	63.35	164	54.597	197	60.52	44	46.451	232	55.39	69	11.958	157	21.42	265
29	39.98	38	61.71	142	54.794	232	60.96	54	46.683	274	54.70	52	12.115	195	18.77	260
Juli 9	40.36	44	60.29	116	55.026	261	61.50	62	46.957	311	54.18	35	12.310	226	16.17	248
19	40.80	49	59.13	88	55.287	285	62.12	69	47.268	342	53.83	18	12.536	252	13.69	228
29	41.29	52	58.25	59	55.572	302	62.81	72	47.610	363	53.65	0	12.788	274	11.41	203
Aug. 8	41.81	55	57.66	28	55.874	314	63.53	73	47.973	379	53.65	17	13.062	289	9.38	169
18	42.36	57	57.38	2	56.188	321	64.26	71	48.352	389	53.82	33	13.351	299	7.69	130
28	42.93	57	57.40	34	56.509	324	64.97	66	48.741	393	54.15	46	13.650	304	6.39	87
Sept. 7	43.50	57	57.74	63	56.833	321	65.63	60	49.134	392	54.61	60	13.954	303	5.52	41
17	44.07	57	58.37	93	57.154	316	66.23	52	49.526	386	55.21	71	14.257	297	5.11	8
27	44.64	54	59.30	121	57.470	306	66.75	43	49.912	375	55.92	82	14.554	288	5.19	56
Okt. 7	45.18	52	60.51	146	57.776	292	67.18	34	50.287	359	56.74	92	14.842	272	5.75	102
17	45.70	49	61.97	171	58.068	277	67.52	26	50.646	339	57.66	102	15.114	254	6.77	143
27	46.19	44	63.68	192	58.345	256	67.78	19	50.985	314	58.68	109	15.368	229	8.20	179
Nov. 6	46.63	39	65.60	211	58.601	231	67.97	14	51.299	282	59.77	118	15.597	201	9.99	208
16	47.02	33	67.71	225	58.832	201	68.11	12	51.581	246	60.95	124	15.798	169	12.07	227
26	47.35	27	69.96	235	59.033	167	68.23	9	51.827	202	62.19	128	15.967	131	14.34	239
Dez. 6	47.62	18	72.31	238	59.200	127	68.32	9	52.029	153	63.47	130	16.098	91	16.73	240
15	47.80	10	74.69	236	59.327	84	68.41	10	52.182	99	64.77	129	16.189	48	19.13	233
25	47.90	2	77.05	225	59.411	40	68.51	11	52.281	42	66.06	125	16.237	3	21.46	219
35	47.92		79.30		59.451		68.62		52.323		67.31		16.240		23.65	
Mittl. Ort	41.59		62.82		55.463		57.85		47.588		53.82		12.958		27.27	
sec δ, tg δ	2.023		+1.758		1.075		+0.394		1.328		+0.874		1.082		−0.413	
a, *a'*	+5.3		+5.3		+3.6		+5.2		+4.2		+5.0		+2.5		+4.9	
b, *b'*	+0.03		−0.96		+0.01		−0.97		+0.01		−0.97		−0.01		−0.97	

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Tag		188) β Eridani AR.		188) β Eridani Dekl.		192) μ Aurigae AR.		192) μ Aurigae Dekl.	
1947		$5^h 5^m$		$-5° 8'$		$5^h 9^m$		$+38° 25'$	
		s		″		s		″	
Jan.	0	14.868	2	73.30	131	48.135	13	30.19	106
	10	14.866	44	74.61	114	48.148	$\overline{42}$	31.25	97
	20	14.822	84	75.75	96	48.106	95	32.22	84
	30	14.738	118	76.71	76	48.011	141	33.06	67
Febr.	9	14.620	145	77.47	54	47.870	177	33.73	46
	19	14.475	165	78.01	32	47.693	203	34.19	25
März	1	14.310	175	78.33	9	47.490	217	34.44	1
	11	14.135	174	78.42	$\overline{14}$	47.273	217	34.45	$\overline{22}$
	21	13.961	164	78.28	36	47.056	204	34.23	42
	31	13.797	144	77.92	58	46.852	178	33.81	61
April	10	13.653	117	77.34	81	46.674	142	33.20	75
	20	13.536	82	76.53	102	46.532	97	32.45	85
	30	13.454	42	75.51	122	46.435	47	31.60	91
Mai	10	13.412	0	74.29	141	46.388	$\overline{8}$	30.69	92
	20	13.412	44	72.88	158	46.396	63	29.77	88
	30	13.456	87	71.30	172	46.459	118	28.89	80
Juni	9	13.543	128	69.58	181	46.577	170	28.09	70
	19	13.671	166	67.77	186	46.747	217	27.39	57
	29	13.837	199	65.91	188	46.964	260	26.82	43
Juli	9	14.036	228	64.03	183	47.224	295	26.39	28
	19	14.264	251	62.20	173	47.519	324	26.11	12
	29	14.515	270	60.47	158	47.843	347	25.99	$\overline{3}$
Aug.	8	14.785	283	58.89	136	48.190	363	26.02	18
	18	15.068	290	57.53	111	48.553	374	26.20	30
	28	15.358	294	56.42	81	48.927	379	26.50	41
Sept.	7	15.652	293	55.61	49	49.306	378	26.91	52
	17	15.945	288	55.12	15	49.684	374	27.43	61
	27	16.233	280	54.97	$\overline{20}$	50.058	365	28.04	69
Okt.	7	16.513	267	55.17	53	50.423	351	28.73	77
	17	16.780	251	55.70	83	50.774	333	29.50	85
	27	17.031	232	56.53	109	51.107	309	30.35	91
Nov.	6	17.263	207	57.62	129	51.416	281	31.26	98
	16	17.470	178	58.91	144	51.697	246	32.24	104
	26	17.648	146	60.35	152	51.943	204	33.28	108
Dez.	6	17.794	109	61.87	154	52.147	158	34.36	112
	15	[8] 17.903	69	63.41	149	[9] 52.305	106	35.48	112
	25	17.972	27	64.90	140	52.411	52	36.60	109
	35	17.999		66.30		52.463		37.69	
Mittl. Ort		14.526		72.34		47.831		25.37	
sec δ, tg δ		1.004		−0.090		1.276		+0.793	
a, a'		+3.0		+4.7		+4.1		+4.4	
b, b'		0.00		−0.97		+0.01		−0.98	

Tag		194) β Orionis AR.		194) β Orionis Dekl.		193) α Aurigae AR.		193) α Aurigae Dekl.	
1947		$5^h 11^m$		$-8° 15'$		$5^h 12^m$		$+45° 56'$	
		s		″		s		″	
Jan.	0	59.741	1	42.19	148	46.589	10	52.65	147
	10	59.742	$\overline{43}$	43.67	130	46.599	$\overline{51}$	54.12	134
	20	59.699	82	44.97	109	46.548	110	55.46	116
	30	59.617	117	46.06	87	46.438	162	56.62	94
Febr.	9	59.500	147	46.93	62	46.276	204	57.56	67
	19	59.353	166	47.55	37	46.072	233	58.23	37
März	1	59.187	178	47.92	11	45.839	249	58.60	7
	11	59.009	178	48.03	$\overline{14}$	45.590	249	58.67	$\overline{24}$
	21	58.831	169	47.89	40	45.341	235	58.43	52
	31	58.662	150	47.49	65	45.106	206	57.91	77
April	10	58.512	123	46.84	89	44.900	167	57.14	99
	20	58.389	89	45.95	112	44.733	118	56.15	115
	30	58.300	50	44.83	134	44.615	61	55.00	125
Mai	10	58.250	8	43.49	154	44.554	1	53.75	130
	20	58.242	$\overline{35}$	41.95	172	44.553	$\overline{61}$	52.45	129
	30	58.277	78	40.23	186	44.614	123	51.16	125
Juni	9	58.355	119	38.37	195	44.737	180	49.91	114
	19	58.474	158	36.42	200	44.917	234	48.77	101
	29	58.632	192	34.42	201	45.151	281	47.76	85
Juli	9	58.824	221	32.41	195	45.432	323	46.91	67
	19	59.045	246	30.46	184	45.755	356	46.24	48
	29	59.291	265	28.62	166	46.111	382	45.76	28
Aug.	8	59.556	280	26.96	143	46.493	402	45.48	8
	18	59.836	288	25.53	116	46.895	415	45.40	$\overline{10}$
	28	60.124	294	24.37	83	47.310	422	45.50	29
Sept.	7	60.418	293	23.54	48	47.732	422	45.79	46
	17	60.711	290	23.06	11	48.154	418	46.25	62
	27	61.001	282	22.95	$\overline{26}$	48.572	408	46.87	78
Okt.	7	61.283	270	23.21	62	48.980	394	47.65	93
	17	61.553	256	23.83	94	49.374	373	48.58	107
	27	61.809	235	24.77	123	49.747	347	49.65	121
Nov.	6	62.044	211	26.00	146	50.094	314	50.86	132
	16	62.255	183	27.46	161	50.408	274	52.18	142
	26	62.438	151	29.07	171	50.682	228	53.60	150
Dez.	6	62.589	113	30.78	173	50.910	175	55.10	154
	15	[10] 62.702	72	32.51	168	[10] 51.085	116	56.64	155
	25	62.774	30	34.19	158	51.201	55	58.19	151
	35	62.804		35.77		51.256		59.70	
Mittl. Ort		59.351		41.09		46.176		47.08	
sec δ, tg δ		1.010		−0.145		1.438		+1.034	
a, a'		+2.9		+4.2		+4.4		+4.1	
b, b'		0.00		−0.98		+0.01		−0.98	

Tag	191) 19 H. Camelop. AR.		191) Dekl.		196) ϑ Doradus AR.		196) Dekl.		201) γ Orionis AR.		201) Dekl.		202) β Tauri AR.		202) Dekl.	
1947	5^h 13^m		+79° 10′		5^h 13^m		−67° 14′		5^h 22^m		+6° 18′		5^h 22^m		+28° 33′	
Jan. 0	$50.^s43$	20	$38.''97$	297	$50.^s87$	26	$47.''80$	294	$17.^s475$	22	$12.''75$	76	$56.^s611$	30	$56.''04$	51
10	50.23	42	41.94	273	50.61	36	50.74	259	17.497	23	11.99	66	56.641	21	56.55	49
20	49.81	62	44.67	237	50.25	44	53.33	214	17.474	65	11.33	55	56.620	69	57.04	45
30	49.19	79	47.04	194	49.81	50	55.47	164	17.409	102	10.78	43	56.551	113	57.49	37
Febr. 9	48.40	92	48.98	144	49.31	56	57.11	111	17.307	134	10.35	32	56.438	148	57.86	28
19	47.48	101	50.42	88	48.75	59	58.22	56	17.173	156	10.03	20	56.290	174	58.14	17
März 1	46.47	107	51.30	31	48.16	60	58.78	1	17.017	170	9.83	9	56.116	189	58.31	4
11	45.40	105	51.61	27	47.56	61	58.77	55	16.847	172	9.74	2	55.927	192	58.35	8
21	44.35	100	51.34	82	46.95	58	58.22	108	16.675	164	9.76	14	55.735	183	58.27	20
31	43.35	91	50.52	133	46.37	55	57.14	159	16.511	146	9.90	25	55.552	163	58.07	29
April 10	42.44	77	49.19	177	45.82	49	55.55	205	16.365	120	10.15	39	55.389	133	57.78	36
20	41.67	61	47.42	214	45.33	42	53.50	247	16.245	86	10.54	52	55.256	94	57.42	41
30	41.06	41	45.28	242	44.91	34	51.03	283	16.159	48	11.06	65	55.162	50	57.01	41
Mai 10	40.65	21	42.86	260	44.57	26	48.20	312	16.111	6	11.71	79	55.112	2	56.60	38
20	40.44	0	40.26	270	44.31	17	45.08	336	16.105	38	12.50	92	55.110	48	56.22	34
30	40.44	22	37.56	271	44.14	6	41.72	350	16.143	81	13.42	103	55.158	96	55.88	27
Juni 9	40.66	43	34.85	264	44.08	3	38.22	357	16.224	122	14.45	114	55.254	143	55.61	18
19	41.09	62	32.21	248	44.11	13	34.65	354	16.346	160	15.59	121	55.397	186	55.43	7
29	41.71	80	29.73	226	44.24	22	31.11	342	16.506	194	16.80	126	55.583	224	55.36	3
Juli 9	42.51	96	27.47	199	44.46	31	27.69	322	16.700	224	18.06	126	55.807	257	55.39	12
19	43.47	110	25.48	166	44.77	39	24.47	291	16.924	249	19.32	123	56.064	285	55.51	22
29	44.57	121	23.82	131	45.16	46	21.56	252	17.173	268	20.55	115	56.349	306	55.73	28
Aug. 8	45.78	130	22.51	91	45.62	52	19.04	204	17.441	282	21.70	104	56.655	322	56.01	35
18	47.08	137	21.60	51	46.14	56	17.00	150	17.723	292	22.74	88	56.977	333	56.36	39
28	48.45	141	21.09	8	46.70	59	15.50	90	18.015	298	23.62	68	57.310	340	56.75	40
Sept. 7	49.86	142	21.01	34	47.29	60	14.60	27	18.313	299	24.30	47	57.650	341	57.15	40
17	51.28	141	21.35	77	47.89	59	14.33	38	18.612	297	24.77	24	57.991	339	57.55	40
27	52.69	138	22.12	119	48.48	57	14.71	103	18.909	291	25.01	0	58.330	333	57.95	39
Okt. 7	54.07	132	23.31	158	49.05	53	15.74	164	19.200	282	25.01	23	58.663	323	58.34	37
17	55.39	123	24.89	197	49.58	47	17.38	220	19.482	269	24.78	45	58.986	309	58.71	36
27	56.62	111	26.86	231	50.05	40	19.58	267	19.751	252	24.33	62	59.295	290	59.07	37
Nov. 6	57.73	97	29.17	261	50.45	31	22.25	305	20.003	230	23.71	77	59.585	266	59.44	37
16	58.70	81	31.78	287	50.76	22	25.30	332	20.233	204	22.94	87	59.851	236	59.81	40
26	59.51	61	34.65	305	50.98	12	28.62	346	20.437	172	22.07	91	60.087	201	60.21	42
Dez. 6	60.12	41	37.70	314	51.10	2	32.08	347	20.609	135	21.16	93	60.288	160	60.63	46
15	10 60.53	18	40.84	316	10 51.12	10	35.55	338	12 20.744	96	20.23	89	12 60.448	115	61.09	48
25	60.71	4	44.00	308	51.02	20	38.93	315	20.840	52	19.34	83	60.563	64	61.57	50
35	60.67		47.08		50.82		42.08		20.892		18.51		60.627		62.07	
Mittl. Ort	46.91		30.86		47.48		42.05		17.183		11.80		56.337		52.58	
sec δ, tg δ	5.325		+5.230		2.585		−2.384		1.006		+0.110		1.139		+0.544	
a, a′	+9.9		+4.0		0.0		+4.0		+3.2		+3.3		+3.8		+3.2	
b, b′	+0.07		−0.98		−0.03		−0.98		0.00		−0.99		+0.01		−0.99	

Scheinbare Sternörter 1947

Tag	203) 17 Camelopard. AR.		Dekl.		206) δ Orionis AR.		Dekl.		207) α Leporis AR.		Dekl.		205) Grb 966 Caml AR.		Dekl.	
1947	$5^h\ 25^m$		$+63°\ 1'$		$5^h\ 29^m$		$-0°\ 19'$		$5^h\ 30^m$		$-17°\ 51'$		$5^h\ 32^m$		$+75°\ 0'$	
	s		″		s		″		s		″		s		″	
Jan. 0	10.44	0	39.70	236	18.174	23	71.89	114	24.023	5	33.03	200	39.93	5	53.27	288
10	10.44	9	42.06	219	18.197	$\overline{21}$	73.03	100	24.028	$\overline{41}$	35.03	179	39.88	21	56.15	269
20	10.35	19	44.25	193	18.176	64	74.03	85	23.987	83	36.82	152	39.67	37	58.84	240
30	10.16	27	46.18	161	18.112	101	74.88	67	23.904	122	38.34	122	39.30	50	61.24	202
Febr. 9	9.89	33	47.79	122	18.011	133	75.55	50	23.782	154	39.56	91	38.80	62	63.26	157
19	9.56	37	49.01	79	17.878	157	76.05	31	23.628	176	40.47	57	38.18	69	64.83	107
März 1	9.19	41	49.80	34	17.721	170	76.36	14	23.452	191	41.04	23	37.49	75	65.90	52
11	8.78	41	50.14	$\overline{13}$	17.551	174	76.50	$\overline{5}$	23.261	194	41.27	$\overline{11}$	36.74	75	66.42	$\overline{3}$
21	8.37	39	50.01	57	17.377	167	76.45	23	23.067	188	41.16	44	35.99	73	66.39	56
31	7.98	35	49.44	98	17.210	152	76.22	40	22.879	171	40.72	77	35.26	67	65.83	106
April 10	7.63	29	48.46	135	17.058	126	75.82	59	22.708	146	39.95	108	34.59	58	64.77	151
20	7.34	23	47.11	163	16.932	94	75.23	77	22.562	115	38.87	138	34.01	46	63.26	189
30	7.11	15	45.48	186	16.838	56	74.46	94	22.447	77	37.49	164	33.55	33	61.37	219
Mai 10	6.96	6	43.62	202	16.782	15	73.52	110	22.370	35	35.85	188	33.22	19	59.18	242
20	6.90	$\overline{4}$	41.60	210	16.767	$\overline{26}$	72.42	126	22.335	$\overline{8}$	33.97	209	33.03	$\underline{4}$	56.76	254
30	6.94	12	39.50	210	16.793	69	71.16	138	22.343	51	31.88	225	32.99	12	54.22	258
Juni 9	7.06	21	37.40	203	16.862	110	69.78	148	22.394	94	29.63	236	33.11	28	51.64	256
19	7.27	29	35.37	192	16.972	149	68.30	156	22.488	134	27.27	241	33.39	42	49.08	245
29	7.56	37	33.45	175	17.121	183	66.74	158	22.622	171	24.86	239	33.81	55	46.63	227
Juli 9	7.93	44	31.70	152	17.304	212	65.16	155	22.793	203	22.47	231	34.36	67	44.36	205
19	8.37	49	30.18	128	17.516	238	63.61	149	22.996	231	20.16	217	35.03	78	42.31	176
29	8.86	53	28.90	100	17.754	259	62.12	138	23.227	254	17.99	195	35.81	87	40.55	145
Aug. 8	9.39	58	27.90	71	18.013	274	60.74	121	23.481	273	16.04	167	36.68	95	39.10	111
18	9.97	60	27.19	39	18.287	285	59.53	99	23.754	285	14.37	133	37.63	99	37.99	73
28	10.57	61	26.80	$\underline{8}$	18.572	292	58.54	75	24.039	294	13.04	94	38.62	104	37.26	$\underline{34}$
Sept. 7	11.18	63	26.72	23	18.864	294	57.79	47	24.333	298	12.10	50	39.66	105	36.92	5
17	11.81	62	26.95	54	19.158	294	57.32	17	24.631	297	11.60	6	40.71	105	36.97	45
27	12.43	61	27.49	86	19.452	288	57.15	$\overline{13}$	24.928	291	11.54	$\overline{40}$	41.76	104	37.42	85
Okt. 7	13.04	59	28.35	116	19.740	281	57.28	43	25.219	282	11.94	84	42.80	101	38.27	124
17	13.63	56	29.51	144	20.021	268	57.71	69	25.501	268	12.78	124	43.81	95	39.51	161
27	14.19	52	30.95	172	20.289	251	58.40	93	25.769	249	14.02	159	44.76	88	41.12	197
Nov. 6	14.71	47	32.67	196	20.540	230	59.33	112	26.018	225	15.61	189	45.64	79	43.09	228
16	15.18	41	34.63	216	20.770	204	60.45	125	26.243	196	17.50	210	46.43	67	45.37	256
26	15.59	33	36.79	232	20.974	173	61.70	132	26.439	161	19.60	223	47.10	55	47.93	277
Dez. 6	15.92	26	39.11	242	21.147	136	63.02	134	26.600	123	21.83	227	47.65	39	50.70	291
15	[13] 16.18	16	41.53	246	[14] 21.283	97	64.36	130	[14] 26.723	81	24.10	223	[15] 48.04	24	53.61	298
25	16.34	6	43.99	241	21.380	53	65.66	123	26.804	35	26.33	212	48.28	7	56.59	293
35	16.40		46.40		21.433		66.89		26.839		28.45		48.35		59.52	
Mittl. Ort	9.40		33.12		17.826		72.29		23.470		31.81		37.44		46.37	
sec δ, tg δ	2.205		+1.965		1.000		−0.006		1.051		−0.322		3.867		+3.735	
a, *a′*	+5.7		+3.0		+3.1		+2.7		+2.6		+2.6		+8.0		+2.4	
b, *b′*	+0.02		−0.99		0.00		−0.99		0.00		−0.99		+0.03		−0.99	

Tag		209) ι Orionis				212) β Doradus			
		AR.		Dekl.		AR.		Dekl.	
1947		$5^h\ 32^m$		$-5°\ 56'$		$5^h\ 33^m$		$-62°\ 31'$	
		s		″		s		″	
Jan.	0	50.736	21	35.21	144	12.43	17	30.75	312
	10	50.757	24	36.65	129	12.26	25	33.87	279
	20	50.733	66	37.94	109	12.01	32	36.66	238
	30	50.667	104	39.03	87	11.69	38	39.04	192
Febr.	9	50.563	136	39.90	65	11.31	44	40.96	141
	19	50.427	159	40.55	41	10.87	48	42.37	86
März	1	50.268	174	40.96	18	10.39	49	43.23	32
	11	50.094	178	41.14	6	9.90	50	43.55	23
	21	49.916	172	41.08	28	9.40	49	43.32	77
	31	49.744	156	40.80	52	8.91	46	42.55	128
April	10	49.588	132	40.28	75	8.45	42	41.27	177
	20	49.456	100	39.53	96	8.03	37	39.50	221
	30	49.356	64	38.57	117	7.66	30	37.29	260
Mai	10	49.292	24	37.40	136	7.36	24	34.69	294
	20	49.268	19	36.04	153	7.12	15	31.75	320
	30	49.287	62	34.51	166	6.97	7	28.55	339
Juni	9	49.349	102	32.85	177	6.90	1	25.16	350
	19	49.451	140	31.08	184	6.91	9	21.66	352
	29	49.591	176	29.24	184	7.00	17	18.14	346
Juli	9	49.767	206	27.40	181	7.17	24	14.68	328
	19	49.973	232	25.59	172	7.41	32	11.40	303
	29	50.205	254	23.87	157	7.73	37	8.37	267
Aug.	8	50.459	270	22.30	136	8.10	43	5.70	223
	18	50.729	282	20.94	111	8.53	46	3.47	171
	28	51.011	289	19.83	81	8.99	50	1.76	114
Sept.	7	51.300	293	19.02	48	9.49	51	0.62	52
	17	51.593	292	18.54	13	10.00	51	0.10	14
	27	51.885	288	18.41	22	10.51	50	0.24	79
Okt.	7	52.173	281	18.63	56	11.01	48	1.03	142
	17	52.454	267	19.19	88	11.49	43	2.45	200
	27	52.721	251	20.07	117	11.92	38	4.45	251
Nov.	6	52.972	230	21.24	138	12.30	32	6.96	294
	16	53.202	203	22.62	154	12.62	25	9.90	324
	26	53.405	172	24.16	164	12.87	16	13.14	344
Dez.	6	53.577	135	25.80	167	13.03	7	16.58	352
	15	53.712	94	27.47	163	13.10	2	20.10	346
	25	53.806	52	29.10	154	13.08	11	23.56	329
	35	53.858		30.64		12.97		26.85	
Mittl. Ort		50.332		35.18		9.71		27.16	
sec δ, tg δ		1.005		−0.104		2.167		−1.923	
a, a′		+2.9		+2.4		+0.5		+2.3	
b, b′		0.00		−0.99		−0.02		−0.99	

Tag		210) ε Orionis				211) ζ Tauri			
		AR.		Dekl.		AR.		Dekl.	
1947		$5^h\ 33^m$		$-1°\ 13'$		$5^h\ 34^m$		$+21°\ 6'$	
		s		″		s		″	
Jan.	0	31.708	25	62.60	120	28.787	40	45.94	6
	10	31.733	18	63.80	106	28.827	9	46.00	11
	20	31.715	61	64.86	90	28.818	55	46.11	12
	30	31.654	100	65.76	71	28.763	98	46.23	12
Febr.	9	31.554	132	66.47	53	28.665	133	46.35	12
	19	31.422	156	67.00	34	28.532	160	46.47	8
März	1	31.266	170	67.34	15	28.372	176	46.55	3
	11	31.096	174	67.49	4	28.196	181	46.58	0
	21	30.922	169	67.45	23	28.015	175	46.58	4
	31	30.753	153	67.22	42	27.840	157	46.54	7
April	10	30.600	129	66.80	61	27.683	131	46.47	8
	20	30.471	97	66.19	79	27.552	96	46.39	7
	30	30.374	60	65.40	96	27.456	56	46.32	4
Mai	10	30.314	20	64.44	114	27.400	12	46.28	1
	20	30.294	22	63.30	129	27.388	34	46.29	7
	30	30.316	65	62.01	142	27.422	80	46.36	15
Juni	9	30.381	105	60.59	152	27.502	124	46.51	24
	19	30.486	144	59.07	158	27.626	165	46.75	32
	29	30.630	179	57.49	161	27.791	202	47.07	39
Juli	9	30.809	208	55.88	159	27.993	233	47.46	45
	19	31.017	235	54.29	152	28.226	260	47.91	49
	29	31.252	255	52.77	140	28.486	282	48.40	51
Aug.	8	31.507	272	51.37	122	28.768	299	48.91	51
	18	31.779	283	50.15	101	29.067	310	49.42	48
	28	32.062	290	49.14	75	29.377	318	49.90	42
Sept.	7	32.352	294	48.39	47	29.695	321	50.32	35
	17	32.646	294	47.92	16	30.016	321	50.67	27
	27	32.940	289	47.76	15	30.337	317	50.94	18
Okt.	7	33.229	282	47.91	46	30.654	310	51.12	9
	17	33.511	270	48.37	73	30.964	298	51.21	2
	27	33.781	253	49.10	98	31.262	281	51.23	4
Nov.	6	34.034	233	50.08	117	31.543	261	51.19	8
	16	34.267	207	51.25	130	31.804	234	51.11	9
	26	34.474	176	52.55	139	32.038	201	51.02	8
Dez.	6	34.650	140	53.94	141	32.239	163	50.94	5
	15	34.790	100	55.35	136	32.402	120	50.89	1
	25	34.890	56	56.71	129	32.522	74	50.88	3
	35	34.946		58.00		32.596		50.91	
Mittl. Ort		31.346		63.04		28.506		43.32	
sec δ, tg δ		1.000		−0.022		1.072		+0.386	
a, a′		+3.0		+2.3		+3.6		+2.2	
b, b′		0.00		−0.99		0.00		−0.99	

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Tag		215) α Columbae				216) ο Aurigae				219) ζ Leporis				220) κ Orionis			
		AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1947		$5^h\ 37^m$		$-34°\ 5'$		$5^h\ 41^m$		$+49°\ 48'$		$5^h\ 44^m$		$-14°\ 50'$		$5^h\ 45^m$		$-9°\ 40'$	
		s		"		s		"		s		"		s		"	
Jan.	0	44.618	19	66.30	266	48.071	48	24.58	173	33.678	21	25.60	193	14.952	28	73.13	168
	10	44.599	69	68.96	238	48.119	22	26.31	164	33.699	25	27.53	173	14.980	17	74.81	150
	20	44.530	117	71.34	206	48.097	89	27.95	150	33.674	68	29.26	149	14.963	61	76.31	129
	30	44.413	160	73.40	167	48.008	150	29.45	129	33.606	108	30.75	122	14.902	101	77.60	105
Febr.	9	44.253	194	75.07	125	47.858	202	30.74	102	33.498	142	31.97	92	14.801	134	78.65	80
	19	44.059	221	76.32	81	47.656	241	31.76	72	33.356	167	32.89	61	14.667	160	79.45	52
März	1	43.838	236	77.13	36	47.415	264	32.48	40	33.189	184	33.50	30	14.507	176	79.97	26
	11	43.602	241	77.49	9	47.151	273	32.88	5	33.005	189	33.80	1	14.331	182	80.23	1
	21	43.361	234	77.40	54	46.878	265	32.93	28	32.816	185	33.79	33	14.149	178	80.22	28
	31	43.127	219	76.86	97	46.613	243	32.65	60	32.631	171	33.46	63	13.971	164	79.94	55
April	10	42.908	193	75.89	138	46.370	207	32.05	86	32.460	149	32.83	93	13.807	142	79.39	79
	20	42.715	159	74.51	176	46.163	159	31.19	110	32.311	118	31.90	120	13.665	112	78.60	104
	30	42.556	120	72.75	211	46.004	104	30.09	128	32.193	83	30.70	146	13.553	77	77.56	127
Mai	10	42.436	75	70.64	240	45.900	42	28.81	140	32.110	43	29.24	170	13.476	37	76.29	148
	20	42.361	27	68.24	265	45.858	22	27.41	146	32.067	1	27.54	189	13.439	5	74.81	166
	30	42.334	20	65.59	284	45.880	87	25.95	147	32.066	42	25.65	206	13.444	46	73.15	181
Juni	9	42.354	68	62.75	296	45.967	149	24.48	142	32.108	83	23.59	217	13.490	88	71.34	192
	19	42.422	115	59.79	300	46.116	208	23.06	135	32.191	123	21.42	223	13.578	126	69.42	199
	29	42.537	157	56.79	297	46.324	262	21.71	123	32.314	159	19.19	224	13.704	162	67.43	199
Juli	9	42.694	197	53.82	286	46.586	309	20.48	108	32.473	192	16.95	217	13.866	194	65.44	195
	19	42.891	231	50.96	266	46.895	350	19.40	91	32.665	221	14.78	206	14.060	221	63.49	185
	29	43.122	261	48.30	237	47.245	384	18.49	72	32.886	244	12.72	186	14.281	245	61.64	169
Aug.	8	43.383	286	45.93	202	47.629	411	17.77	52	33.130	263	10.86	161	14.526	262	59.95	146
	18	43.669	304	43.91	158	48.040	430	17.25	33	33.393	278	9.25	129	14.788	277	58.49	118
	28	43.973	316	42.33	110	48.470	444	16.92	12	33.671	289	7.96	93	15.065	287	57.31	87
Sept.	7	44.289	323	41.23	57	48.914	452	16.80	8	33.960	294	7.03	53	15.352	292	56.44	50
	17	44.612	325	40.66	1	49.366	454	16.88	28	34.254	295	6.50	11	15.644	293	55.94	12
	27	44.937	319	40.65	55	49.820	450	17.16	47	34.549	293	6.39	32	15.937	291	55.82	27
Okt.	7	45.256	309	41.20	110	50.270	440	17.63	68	34.842	286	6.71	75	16.228	285	56.09	64
	17	45.565	291	42.30	161	50.710	423	18.31	87	35.128	274	7.46	114	16.513	274	56.73	100
	27	45.856	268	43.91	205	51.133	401	19.18	106	35.402	259	8.60	148	16.787	258	57.73	131
Nov.	6	46.124	239	45.96	243	51.534	369	20.24	124	35.661	236	10.08	177	17.045	238	59.04	156
	16	46.363	204	48.39	271	51.903	330	21.48	140	35.897	209	11.85	198	17.283	212	60.60	175
	26	46.567	162	51.10	289	52.233	282	22.88	155	36.106	177	13.83	212	17.495	181	62.35	187
Dez.	6	46.729	117	53.99	296	52.515	227	24.43	165	36.283	139	15.95	217	17.676	144	64.22	191
	16	46.846	67	56.95	293	52.742	164	26.08	172	36.422	97	18.12	213	17.820	103	66.13	187
	25	^{16}46.913	16	59.88	279	^{17}52.906	96	27.80	174	^{18}36.519	53	20.25	204	^{18}17.923	59	68.00	179
	35	46.929		62.67		53.002		29.54		36.572		22.29		17.982		69.79	
Mittl. Ort		43.693		64.35		47.487		19.68		33.150		25.36		14.490		73.28	
sec δ, tg δ		1.208		−0.677		1.549		+1.184		1.035		−0.265		1.014		−0.171	
a, *a'*		+2.2		+1.9		+4.6		+1.6		+2.7		+1.4		+2.8		+1.3	
b, *b'*		0.00		−1.00		+0.01		−1.00		0.00		−1.00		0.00		−1.00	

Tag	224) α Orionis AR.		224) α Orionis Dekl.		225) δ Aurigae AR.		225) δ Aurigae Dekl.		227) β Aurigae AR.		227) β Aurigae Dekl.		1162) +33° 1209 Auri AR.		1162) +33° 1209 Auri Dekl.	
1947	5h 52m		+7° 23′		5h 55m		+54° 16′		5h 55m		+44° 56′		5h 56m		+33° 8′	
	s		″		s		″		s		″		s		″	
Jan. 0	18.410	50	57.55	77	10.453	68	63.93	197	38.900	68	43.58	147	45.611	67	9.55	77
10	18.460	3	56.78	66	10.521	11	65.90	190	38.968	3	45.05	142	45.678	12	10.32	78
20	18.463	42	56.12	54	10.510	86	67.80	176	38.971	60	46.47	133	45.690	43	11.10	75
30	18.421	84	55.58	42	10.424	156	69.56	154	38.911	118	47.80	119	45.647	93	11.85	69
Febr. 9	18.337	119	55.16	30	10.268	215	71.10	126	38.793	169	48.99	98	45.554	135	12.54	59
19	18.218	146	54.86	19	10.053	262	72.36	94	38.624	208	49.97	73	45.419	170	13.13	46
März 1	18.072	165	54.67	8	9.791	292	73.30	58	38.416	233	50.70	46	45.249	193	13.59	30
11	17.907	173	54.59	3	9.499	304	73.88	20	38.183	245	51.16	18	45.056	202	13.89	13
21	17.734	169	54.62	13	9.195	300	74.08	18	37.938	241	51.34	12	44.854	199	14.02	3
31	17.565	157	54.75	23	8.895	279	73.90	54	37.697	224	51.22	39	44.655	185	13.99	19
April 10	17.408	134	54.98	34	8.616	243	73.36	86	37.473	193	50.83	64	44.470	159	13.80	34
20	17.274	104	55.32	45	8.373	195	72.50	115	37.280	152	50.19	84	44.311	124	13.46	44
30	17.170	69	55.77	57	8.178	136	71.35	138	37.128	104	49.35	102	44.187	82	13.02	53
Mai 10	17.101	29	56.34	68	8.042	71	69.97	154	37.024	49	48.33	113	44.105	35	12.49	57
20	17.072	12	57.02	79	7.971	2	68.43	165	36.975	9	47.20	119	44.070	14	11.92	58
30	17.084	55	57.81	89	7.969	69	66.78	170	36.984	67	46.01	122	44.084	64	11.34	58
Juni 9	17.139	96	58.70	99	8.038	137	65.08	170	37.051	125	44.79	120	44.148	112	10.76	53
19	17.235	135	59.69	105	8.175	202	63.38	164	37.176	179	43.59	115	44.260	158	10.23	47
29	17.370	169	60.74	109	8.377	263	61.74	153	37.355	228	42.44	105	44.418	200	9.76	40
Juli 9	17.539	201	61.83	109	8.640	317	60.21	140	37.583	272	41.39	94	44.618	237	9.36	32
19	17.740	228	62.92	107	8.957	365	58.81	123	37.855	311	40.45	80	44.855	269	9.04	24
29	17.968	251	63.99	100	9.322	404	57.58	104	38.166	343	39.65	67	45.124	296	8.80	17
Aug. 8	18.219	268	64.99	88	9.726	437	56.54	83	38.509	369	38.98	51	45.420	317	8.63	9
18	18.487	282	65.87	75	10.163	463	55.71	61	38.878	389	38.47	36	45.737	334	8.54	3
28	18.769	292	66.62	56	10.626	481	55.10	37	39.267	404	38.11	21	46.071	347	8.51	1
Sept. 7	19.061	298	67.18	36	11.107	493	54.73	15	39.671	414	37.90	5	46.418	354	8.52	6
17	19.359	301	67.54	14	11.600	499	54.58	9	40.085	418	37.85	9	46.772	357	8.58	10
27	19.660	299	67.68	10	12.099	497	54.67	34	40.503	417	37.94	25	47.129	358	8.68	13
Okt. 7	19.959	295	67.58	31	12.596	490	55.01	58	40.920	411	38.19	41	47.487	353	8.81	17
17	20.254	286	67.27	52	13.086	474	55.59	81	41.331	399	38.60	57	47.840	343	8.98	22
27	20.540	273	66.75	70	13.560	451	56.40	106	41.730	381	39.17	73	48.183	329	9.20	28
Nov. 6	20.813	254	66.05	82	14.011	418	57.46	128	42.111	356	39.90	89	48.512	309	9.48	35
16	21.067	231	65.23	92	14.429	377	58.74	150	42.467	322	40.79	104	48.821	280	9.83	42
26	21.298	201	64.31	97	14.806	325	60.24	168	42.789	281	41.83	119	49.101	247	10.25	51
Dez. 6	21.499	166	63.34	96	15.131	264	61.92	182	43.070	231	43.02	130	49.348	205	10.76	60
16	21.665	126	62.38	92	15.395	196	63.74	192	43.301	175	43.32	140	49.553	158	11.36	68
25	[20] 21.791	81	61.46	85	[21] 15.591	121	65.66	196	[21] 43.476	113	45.72	144	[21] 49.711	105	12.04	73
35	21.872		60.61		15.712		67.62		43.589		47.16		49.816		12.77	
Mittl. Ort	18.076		55.97		9.701		59.29		38.383		39.50		45.241		6.23	
sec δ, tg δ	1.008		+0.130		1.713		+1.391		1.413		+0.998		1.194		+0.653	
a, *a′*	+3.2		+0.7		+4.9		+0.4		+4.4		+0.4		+3.9		+0.3	
b, *b′*	0.00		—1.00		0.00		—1.00		0.00		—1.00		0.00		—1.00	

Scheinbare Sternörter 1947

Tag	229) η Columbae				232) ν Orionis				1168) κ Aurigae				234) 22 H. Camelop.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$5^h\ 57^m$		$-42°\ 48'$		$6^h\ 4^m$		$+14°\ 46'$		$6^h\ 11^m$		$+29°\ 31'$		$6^h\ 12^m$		$+69°\ 20'$	
	s		"		s		"		s		' "		s		"	
Jan. 0	32.623	19	62.68	302	33.003	66	37.66	36	60.378	83	13.08	52	62.34	10	35.40	269
10	32.604	78	65.70	276	33.069	18	37.30	27	60.461	29	13.60	57	62.44	$\overline{2}$	38.09	262
20	32.526	133	68.46	242	33.087	$\overline{30}$	37.03	19	60.490	$\overline{26}$	14.17	59	62.42	15	40.71	246
30	32.393	182	70.88	203	33.057	75	36.84	10	60.464	76	14.76	57	62.27	27	43.17	219
Febr. 9	32.211	223	72.91	159	32.982	113	36.74	$\overline{5}$	60.388	119	15.33	51	62.00	36	45.36	185
19	31.988	254	74.50	111	32.869	143	36.69	1	60.269	155	15.84	44	61.64	44	47.21	144
März 1	31.734	276	75.61	62	32.726	164	36.70	4	60.114	180	16.28	32	61.20	50	48.65	97
11	31.458	284	76.23	13	32.562	174	36.74	7	59.934	192	16.60	20	60.70	53	49.62	48
21	31.174	281	76.36	$\overline{36}$	32.388	173	36.81	10	59.742	192	16.80	7	60.17	54	50.10	$\overline{3}$
31	30.893	268	76.00	84	32.215	162	36.91	13	59.550	181	16.87	$\overline{6}$	59.63	50	50.07	52
April 10	30.625	243	75.16	131	32.053	140	37.04	16	59.369	159	16.81	17	59.13	46	49.55	98
20	30.382	211	73.85	172	31.913	112	37.20	20	59.210	128	16.64	27	58.67	39	48.57	139
30	30.171	170	72.13	212	31.801	76	37.40	26	59.082	90	16.37	33	58.28	30	47.18	174
Mai 10	30.001	124	70.01	246	31.725	36	37.66	31	58.992	46	16.04	38	57.98	21	45.44	201
20	29.877	74	67.55	275	31.689	$\overline{6}$	37.97	39	58.946	$\overline{1}$	15.66	39	57.77	$\overline{9}$	43.43	223
30	29.803	22	64.80	297	31.695	48	38.36	45	58.947	47	15.27	39	57.68	1	41.20	235
Juni 9	29.781	$\overline{30}$	61.83	312	31.743	90	38.81	53	58.994	93	14.88	36	57.69	13	38.85	241
19	29.811	81	58.71	320	31.833	130	39.34	58	59.087	138	14.52	32	57.82	23	36.44	239
29	29.892	132	55.51	319	31.963	167	39.92	62	59.225	178	14.20	27	58.05	34	34.05	232
Juli 9	30.024	178	52.32	309	32.130	199	40.54	65	59.403	214	13.93	22	58.39	43	31.73	219
19	30.202	220	49.23	290	32.329	227	41.19	65	59.617	247	13.71	16	58.82	51	29.54	200
29	30.422	257	46.33	262	32.556	251	41.84	62	59.864	274	13.55	12	59.33	59	27.54	177
Aug. 8	30.679	290	43.71	225	32.807	271	42.46	55	60.138	296	13.43	9	59.92	65	25.77	150
18	30.969	315	41.46	182	33.078	286	43.01	47	60.434	315	13.34	6	60.57	71	24.27	121
28	31.284	335	39.64	130	33.364	298	43.48	36	60.749	328	13.28	5	61.28	74	23.06	90
Sept. 7	31.619	348	38.34	74	33.662	305	43.84	21	61.077	338	13.23	5	62.02	78	22.16	55
17	31.967	354	37.60	15	33.967	310	44.05	7	61.415	344	13.18	5	62.80	79	21.61	20
27	32.321	353	37.45	$\overline{46}$	34.277	311	44.12	$\overline{9}$	61.759	347	13.13	5	63.59	80	21.41	$\overline{16}$
Okt. 7	32.674	344	37.91	106	34.588	308	44.03	23	62.106	345	13.08	5	64.39	79	21.57	53
17	33.018	327	38.97	163	34.896	301	43.80	37	62.451	338	13.03	3	65.18	76	22.10	90
27	33.345	304	40.60	213	35.197	290	43.43	47	62.789	327	13.00	0	65.94	73	23.00	127
Nov. 6	33.649	271	42.73	257	35.487	273	42.96	56	63.116	309	13.00	5	66.67	68	24.27	161
16	33.920	232	45.30	290	35.760	250	42.40	59	63.425	285	13.05	12	67.35	61	25.88	192
26	34.152	186	48.20	313	36.010	220	41.81	59	63.710	254	13.17	20	67.96	53	27.80	221
Dez. 6	34.338	134	51.33	326	36.230	186	41.22	57	63.964	215	13.37	30	68.49	42	30.01	244
16	$_{21}$34.472	78	54.59	325	$_{23}$36.416	145	40.65	51	$_{25}$64.179	170	13.67	38	$_{25}$68.91	32	32.45	260
25	34.550	19	57.84	315	36.561	99	40.14	43	64.349	119	14.05	47	69.23	19	35.05	267
35	34.569		60.99		36.660		39.71		64.468		14.52		69.42		37.72	
Mittl. Ort	31.365		61.98		32.676		35.50		60.011		10.24		60.53		30.98	
sec δ, tg δ	1.363		−0.927		1.034		+0.264		1.149		+0.566		2.835		+2.652	
a, *a'*	+1.8		+0.2		+3.4		−0.4		+3.8		−1.0		+6.6		−1.1	
b, *b'*	0.00		−1.00		0.00		−1.00		0.00		−1.00		−0.01		−1.00	

Tag	240) ζ Canis maj. AR.		240) ζ Canis maj. Dekl.		241) μ Geminorum AR.		241) μ Geminorum Dekl.		243) β Canis maj. AR.		243) β Canis maj. Dekl.		242) ψ¹ Aurigae AR.		242) ψ¹ Aurigae Dekl.	
1947	6h 18m		−30° 1′		6h 19m		+22° 32′		6h 20m		−17° 55′		6h 20m		+49° 18′	
	s		"		s		"		s		"		s		"	
Jan. 0	17.475	33	77.78	273	45.556	88	35.93	8	22.471	52	40.44	223	49.681	107	65.54	169
10	17.508	20	80.51	252	45.644	35	36.01	16	22.523	4	42.67	204	49.788	34	67.23	169
20	17.488	70	83.03	225	45.679	17	36.17	22	22.527	44	44.71	181	49.822	37	68.92	163
30	17.418	117	85.28	191	45.662	64	36.39	27	22.483	89	46.52	152	49.785	104	70.55	150
Febr. 9	17.301	157	87.19	154	45.598	107	36.66	27	22.394	128	48.04	122	49.681	163	72.05	131
19	17.144	189	88.73	114	45.491	141	36.93	26	22.266	158	49.26	89	49.518	210	73.36	105
März 1	16.955	211	89.87	72	45.350	166	37.19	23	22.108	180	50.15	55	49.308	245	74.41	75
11	16.744	223	90.59	30	45.184	179	37.42	18	21.928	192	50.70	22	49.063	263	75.16	44
21	16.521	225	90.89	13	45.005	180	37.60	13	21.736	193	50.92	12	48.800	267	75.60	11
31	16.296	216	90.76	54	44.825	172	37.73	7	21.543	185	50.80	45	48.533	254	75.71	22
April 10	16.080	197	90.22	95	44.653	152	37.80	1	21.358	168	50.35	78	48.279	228	75.49	53
20	15.883	171	89.27	132	44.501	123	37.81	1	21.190	142	49.57	108	48.051	189	74.96	80
30	15.712	137	87.95	168	44.378	88	37.80	4	21.048	111	48.49	136	47.862	141	74.16	103
Mai 10	15.575	99	86.27	200	44.290	49	37.76	4	20.937	75	47.13	162	47.721	87	73.13	122
20	15.476	57	84.27	227	44.241	6	37.72	3	20.862	35	45.51	184	47.634	27	71.91	135
30	15.419	13	82.00	249	44.235	38	37.69	0	20.827	6	43.67	204	47.607	34	70.56	144
Juni 9	15.406	31	79.51	266	44.273	82	37.69	3	20.833	46	41.63	217	47.641	95	69.12	147
19	15.437	75	76.85	276	44.355	123	37.72	8	20.879	86	39.46	227	47.736	154	67.65	146
29	15.512	116	74.09	277	44.478	161	37.80	11	20.965	124	37.19	229	47.890	209	66.19	141
Juli 9	15.628	156	71.32	273	44.639	196	37.91	14	21.089	159	34.90	225	48.099	259	64.78	133
19	15.784	191	68.59	259	44.835	226	38.05	16	21.248	190	32.65	215	48.358	304	63.45	122
29	15.975	222	66.00	237	45.061	253	38.21	17	21.438	217	30.50	197	48.662	342	62.23	108
Aug. 8	16.197	250	63.63	208	45.314	275	38.38	14	21.655	241	28.53	172	49.004	374	61.15	94
18	16.447	273	61.55	171	45.589	293	38.52	12	21.896	261	26.81	142	49.378	402	60.21	78
28	16.720	291	59.84	128	45.882	306	38.64	7	22.157	277	25.39	106	49.780	423	59.43	60
Sept. 7	17.011	306	58.56	79	46.188	318	38.71	0	22.434	288	24.33	64	50.203	438	58.83	43
17	17.317	313	57.77	26	46.506	324	38.71	8	22.722	296	23.69	20	50.641	449	58.40	24
27	17.630	317	57.51	28	46.830	327	38.63	15	23.018	300	23.49	26	51.090	454	58.16	4
Okt. 7	17.947	314	57.79	82	47.157	328	38.48	21	23.318	299	23.75	71	51.544	452	58.12	15
17	18.261	306	58.61	134	47.485	323	38.27	26	23.617	292	24.46	114	51.996	445	58.27	37
27	18.567	291	59.95	180	47.808	313	38.01	30	23.909	281	25.60	154	52.441	429	58.64	59
Nov. 6	18.858	270	61.75	221	48.121	298	37.71	31	24.190	263	27.14	186	52.870	407	59.23	80
16	19.128	241	63.96	253	48.419	275	37.40	29	24.453	239	29.00	213	53.277	374	60.03	102
26	19.369	205	66.49	276	48.694	247	37.11	23	24.692	209	31.13	230	53.651	332	61.05	122
Dez. 6	19.574	165	69.25	288	48.941	211	36.88	17	24.901	172	33.43	240	53.983	281	62.27	140
16	19.739	118	72.13	291	49.152	170	36.71	8	25.073	131	35.83	240	54.264	222	63.67	154
26	19.857	67	75.04	284	49.322	121	36.63	1	25.204	84	38.23	233	54.486	154	65.21	165
35	[26]19.924		77.88		[27]49.443		36.64		[27]25.288		40.56		[27]54.640		66.86	
Mittl. Ort	16.635		78.96		45.211		33.46		21.874		41.92		49.020		62.21	
sec δ, tg δ	1.155		−0.578		1.083		+0.415		1.051		−0.324		1.534		+1.163	
a, a′	+2.3		−1.6		+3.6		−1.7		+2.6		−1.8		+4.6		−1.8	
b, b′	0.00		−1.00		0.00		−1.00		0.00		−1.00		−0.01		−1.00	

Scheinbare Sternörter 1947

Tag	244) 8 ε Monocerotis AR.		Dekl.		245) α Carinae AR.		Dekl.		246) 10 Monocerotis AR.		Dekl.		249) ξ² Canis maj. AR.		Dekl.	
1947	6ʰ 20ᵐ		+4° 37′		6ʰ 22ᵐ		−52° 39′		6ʰ 25ᵐ		−4° 43′		6ʰ 32ᵐ		−22° 54′	
	s		″		s		″		s		″		s		″	
Jan. 0	57.892	75	19.10	102	48.274	19	55.83	336	20.898	71	38.27	157	50.704	59	75.36	251
10	57.967	28	18.08	88	48.255	90	59.19	314	20.969	23	39.84	141	50.763	8	77.87	232
20	57.995	20	17.20	74	48.165	158	62.33	283	20.992	23	41.25	122	50.771	42	80.19	208
30	57.975	65	16.46	58	48.007	218	65.16	244	20.969	68	42.47	102	50.729	88	82.27	178
Febr. 9	57.910	104	15.88	42	47.789	271	67.60	201	20.901	107	43.49	79	50.641	129	84.05	145
19	57.806	135	15.46	28	47.518	313	69.61	152	20.794	138	44.28	56	50.512	162	85.50	110
März 1	57.671	157	15.18	13	47.205	341	71.13	101	20.656	161	44.84	33	50.350	186	86.60	73
11	57.514	170	15.05	0	46.864	357	72.14	49	20.495	173	45.17	11	50.164	200	87.33	35
21	57.344	171	15.05	13	46.507	361	72.63	4	20.322	176	45.28	12	49.964	204	87.68	2
31	57.173	163	15.18	27	46.146	350	72.59	55	20.146	168	45.16	33	49.760	197	87.66	39
April 10	57.010	145	15.45	39	45.796	329	72.04	106	19.978	151	44.83	55	49.563	182	87.27	74
20	56.865	119	15.84	51	45.467	297	70.98	153	19.827	127	44.28	75	49.381	158	86.53	109
30	56.746	88	16.35	63	45.170	255	69.45	197	19.700	97	43.53	94	49.223	128	85.44	141
Mai 10	56.658	52	16.98	76	44.915	207	67.48	236	19.603	61	42.59	112	49.095	93	84.03	170
20	56.606	12	17.74	86	44.708	152	65.12	271	19.542	22	41.47	129	49.002	53	82.33	195
30	56.594	28	18.60	97	44.556	94	62.41	298	19.520	16	40.18	143	48.949	13	80.38	217
Juni 9	56.622	68	19.57	106	44.462	33	59.43	318	19.536	56	38.75	153	48.936	28	78.21	233
19	56.690	106	20.63	111	44.429	28	56.25	330	19.592	95	37.22	160	48.964	69	75.88	243
29	56.796	141	21.74	115	44.457	89	52.95	334	19.687	129	35.62	164	49.033	107	73.45	247
Juli 9	56.937	174	22.89	114	44.546	147	49.61	328	19.816	162	33.98	162	49.140	144	70.98	243
19	57.111	203	24.03	110	44.693	202	46.33	313	19.978	192	32.36	155	49.284	178	68.55	234
29	57.314	227	25.13	101	44.895	252	43.20	288	20.170	218	30.81	143	49.462	207	66.21	216
Aug. 8	57.541	249	26.14	90	45.147	297	40.32	253	20.388	239	29.38	125	49.669	234	64.05	190
18	57.790	265	27.04	72	45.444	337	37.79	210	20.627	257	28.13	102	49.903	256	62.15	158
28	58.055	279	27.76	53	45.781	368	35.69	160	20.884	273	27.11	76	50.159	275	60.57	119
Sept. 7	58.334	290	28.29	30	46.149	391	34.09	102	21.157	283	26.35	44	50.434	289	59.38	76
17	58.624	296	28.59	4	46.540	407	33.07	41	21.440	291	25.91	11	50.723	300	58.62	28
27	58.920	300	28.63	21	46.947	411	32.66	23	21.731	296	25.80	23	51.023	305	58.34	21
Okt. 7	59.220	300	28.42	46	47.358	407	32.89	88	22.027	296	26.03	58	51.328	306	58.55	71
17	59.520	295	27.96	69	47.765	392	33.77	150	22.323	291	26.61	90	51.634	301	59.26	118
27	59.815	286	27.27	90	48.157	367	35.27	207	22.614	282	27.51	118	51.935	291	60.44	161
Nov. 6	60.101	271	26.37	106	48.524	331	37.34	256	22.896	268	28.69	143	52.226	274	62.05	199
16	60.372	250	25.31	116	48.855	284	39.90	297	23.164	247	30.12	160	52.500	251	64.04	229
26	60.622	224	24.15	123	49.139	230	42.87	327	23.411	219	31.72	171	52.751	219	66.33	251
Dez. 6	60.846	190	22.92	123	49.369	167	46.14	345	23.630	186	33.43	176	52.970	182	68.84	263
16	61.036	150	21.69	119	49.536	99	49.59	352	23.816	146	35.19	174	53.152	139	71.47	266
26	61.186	107	20.50	110	49.635	28	53.11	346	23.962	103	36.93	166	53.291	92	74.13	260
35	[27] 61.293		19.40		[28] 49.663		56.57		[28] 24.065		38.59		[30] 53.383		76.73	
Mittl. Ort	57.521		17.14		46.472		57.35		20.460		40.16		50.022		77.52	
sec δ, tg δ	1.003		+0.081		1.649		−1.311		1.003		−0.083		1.086		−0.423	
a, *a′*	+3.2		−1.8		+1.3		−2.0		+3.0		−2.2		+2.5		−2.9	
b, *b′*	0.00		−1.00		+0.01		−1.00		0.00		−0.99		0.00		−0.99	

Tag	247) 8 Lyncis AR.		247) 8 Lyncis Dekl.		251) γ Geminorum AR.		251) γ Geminorum Dekl.		250) 51 Aurigae AR.		250) 51 Aurigae Dekl.		252) ν Puppis AR.		252) ν Puppis Dekl.	
1947	6^h 32^m		+61° 31′		6^h 34^m		+16° 26′		6^h 34^m		+39° 26′		6^h 36^m		−43° 8′	
	s		"		s		"		s		"		s		"	
Jan. 0	52.21	14	52.90	231	39.350	98	48.80	33	59.701	117	25.08	110	° 9.548	28	51.71	323
10	52.35	5	55.21	231	39.448	48	48.47	23	59.818	55	26.18	114	9.576	—33	54.94	303
20	52.40	—6	57.52	223	39.496	—3	48.24	12	59.873	—7	27.32	116	9.543	93	57.97	276
30	52.34	14	59.75	205	39.493	51	48.12	2	59.866	65	28.48	111	9.450	148	60.73	241
Febr. 9	52.20	23	61.80	179	39.442	94	48.10	—5	59.801	118	29.59	101	9.302	195	63.14	200
19	51.97	29	63.59	146	39.348	129	48.15	10	59.683	163	30.60	86	9.107	234	65.14	155
März 1	51.68	35	65.05	108	39.219	155	48.25	14	59.520	194	31.46	68	8.873	262	66.69	109
11	51.33	37	66.13	66	39.064	169	48.39	16	59.326	213	32.14	46	8.611	279	67.78	60
21	50.96	38	66.79	22	38.895	174	48.55	17	59.113	219	32.60	23	8.332	284	68.38	10
31	50.58	37	67.01	—22	38.721	167	48.72	17	58.894	212	32.83	—1	8.048	278	68.48	—38
April 10	50.21	33	66.79	64	38.554	152	48.89	18	58.682	192	32.82	23	7.770	261	68.10	85
20	49.88	30	66.15	101	38.402	126	49.07	19	58.490	161	32.59	43	7.509	236	67.25	131
30	49.58	23	65.14	135	38.276	95	49.26	21	58.329	122	32.16	60	7.273	201	65.94	173
Mai 10	49.35	16	63.79	163	38.181	58	49.47	24	58.207	78	31.56	75	7.072	160	64.21	211
20	49.19	9	62.16	184	38.123	18	49.71	28	58.129	28	30.81	85	6.912	116	62.10	245
30	49.10	0	60.32	200	38.105	—23	49.99	31	58.101	—23	29.96	91	6.796	67	59.65	272
Juni 9	49.10	8	58.32	208	38.128	64	50.30	36	58.124	74	29.05	96	6.729	17	56.93	293
19	49.18	16	56.24	211	38.192	103	50.66	39	58.198	123	28.09	95	6.712	—33	54.00	307
29	49.34	23	54.13	207	38.295	140	51.05	42	58.321	169	27.14	93	6.745	82	50.93	313
Juli 9	49.57	31	52.06	200	38.435	174	51.47	43	58.490	212	26.21	89	6.827	131	47.80	309
19	49.88	37	50.06	187	38.609	205	51.90	41	58.702	250	25.32	83	6.958	176	44.71	297
29	50.25	42	48.19	171	38.814	231	52.31	39	58.952	283	24.49	76	7.134	217	41.74	276
Aug. 8	50.67	48	46.48	151	39.045	253	52.70	33	59.235	312	23.73	68	7.351	254	38.98	244
18	51.15	51	44.97	128	39.298	273	53.03	24	59.547	335	23.05	61	7.605	286	36.54	206
28	51.66	55	43.69	104	39.571	288	53.27	14	59.882	355	22.44	52	7.891	314	34.48	159
Sept. 7	52.21	58	42.65	77	39.859	300	53.41	2	60.237	371	21.92	44	8.205	335	32.89	105
17	52.79	59	41.88	48	40.159	309	53.43	—13	60.608	381	21.48	35	8.540	349	31.84	47
27	53.38	60	41.40	18	40.468	316	53.30	26	60.989	388	21.13	25	8.889	358	31.37	—13
Okt. 7	53.98	61	41.22	—13	40.784	317	53.04	39	61.377	391	20.88	15	9.247	357	31.50	74
17	54.59	59	41.35	44	41.101	315	52.65	50	61.768	387	20.73	2	9.604	350	32.24	134
27	55.18	58	41.79	77	41.416	308	52.15	60	62.155	379	20.71	—11	9.954	333	33.58	190
Nov. 6	55.76	55	42.56	110	41.724	296	51.55	65	62.534	362	20.82	26	10.287	309	35.48	238
16	56.31	50	43.66	140	42.020	276	50.90	67	62.896	338	21.08	42	10.596	275	37.86	278
26	56.81	44	45.06	169	42.296	249	50.23	66	63.234	304	21.50	59	10.871	232	40.64	308
Dez. 6	57.25	38	46.75	193	42.545	217	49.57	60	63.538	264	22.09	75	11.103	184	43.72	327
16	57.63	29	48.68	212	42.762	176	48.97	52	63.802	214	22.84	89	11.287	128	46.99	335
26	57.92	21	50.80	225	42.938	131	48.45	43	64.016	158	23.73	101	11.415	68	50.34	333
35	[30] 58.13		53.05		[31] 43.069		48.02		[31] 64.174		24.74		[31] 11.483		53.67	
Mittl. Ort	51.03		49.80		39.004		46.52		59.213		22.52		8.282		54.34	
sec δ, tg δ	2.098		+1.844		1.043		+0.295		1.295		+0.823		1.371		−0.937	
a, *a′*	+5.5		−2.9		+3.5		−3.0		+4.2		−3.0		+1.8		−3.1	
b, *b′*	−0.02		−0.99		0.00		−0.99		−0.01		−0.99		+0.01		−0.99	

Scheinbare Sternörter 1947

Tag	248) 23 H. Camelop.				254) ε Geminorum				256) ξ Geminorum				257) α Canis maj.[1])			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	6h 37m		+79° 37′		6h 40m		+25° 11′		6h 42m		+12° 57′		6h 42m		−16° 38′	
Jan. 0*)	^{0}18.11	25	41.01	306	$_{1}$40.653	111	9.85	20	$_{1}$19.214	103	18.16	58	$_{1}$49.382	70	28.08	228
10	18.36	$\overline{1}$	44.07	303	40.764	58	10.05	30	19.317	52	17.58	46	49.452	20	30.36	210
20	18.35	25	47.10	289	40.822	4	10.35	37	19.369	3	17.12	32	49.472	$\overline{28}$	32.46	187
30	18.10	49	49.99	265	40.826	$\overline{48}$	10.72	42	19.372	$\overline{45}$	16.80	21	49.444	74	34.33	161
Febr. 9	17.61	68	52.64	230	40.778	93	11.14	44	19.327	88	16.59	10	49.370	115	35.94	130
19	16.93	86	54.94	187	40.685	132	11.58	42	19.239	124	16.49	2	49.255	148	37.24	98
März 1	16.07	99	56.81	137	40.553	161	12.00	37	19.115	150	16.47	$\overline{6}$	49.107	173	38.22	66
11	15.08	106	58.18	82	40.392	177	12.37	31	18.965	166	16.53	12	48.934	187	38.88	33
21	14.02	109	59.00	25	40.215	184	12.68	23	18.799	172	16.65	17	48.747	192	39.21	1
31	12.93	107	59.25	$\overline{31}$	40.031	178	12.91	13	18.627	166	16.82	20	48.555	186	39.22	$\overline{32}$
April 10	11.86	100	58.94	86	39.853	162	13.04	6	18.461	152	17.02	25	48.369	171	38.90	62
20	10.86	89	58.08	135	39.691	136	13.10	$\overline{2}$	18.309	129	17.27	28	48.198	149	38.28	92
30	9.97	75	56.73	180	39.555	103	13.08	9	18.180	98	17.55	34	48.049	120	37.36	120
Mai 10	9.22	58	54.93	216	39.452	66	12.99	12	18.082	63	17.89	38	47.929	86	36.16	145
20	8.64	39	52.77	246	39.386	24	12.87	15	18.019	25	18.27	43	47.843	49	34.71	168
30	8.25	18	50.31	266	39.362	$\overline{20}$	12.72	15	17.994	$\overline{14}$	18.70	49	47.794	9	33.03	185
Juni 9	8.07	$\overline{3}$	47.65	280	39.382	63	12.57	15	18.008	55	19.19	53	47.785	$\overline{30}$	31.18	200
19	8.10	24	44.85	285	39.445	104	12.42	14	18.063	93	19.72	57	47.815	69	29.18	210
29	8.34	45	42.00	282	39.549	144	12.28	12	18.156	130	20.29	59	47.884	107	27.08	213
Juli 9	8.79	64	39.18	273	39.693	180	12.16	10	18.286	163	20.88	59	47.991	141	24.95	210
19	9.43	82	36.45	257	39.873	212	12.06	9	18.449	193	21.47	57	48.132	173	22.85	202
29	10.25	98	33.88	235	40.085	241	11.97	9	18.642	220	22.04	52	48.305	201	20.83	186
Aug. 8	11.23	113	31.53	207	40.326	264	11.88	10	18.862	242	22.56	45	48.506	226	18.97	163
18	12.36	125	29.46	177	40.590	286	11.78	13	19.104	262	23.01	33	48.732	248	17.34	135
28	13.61	135	27.69	143	40.876	303	11.65	16	19.366	279	23.34	19	48.980	266	15.99	99
Sept. 7	14.96	142	26.26	104	41.179	317	11.49	21	19.645	292	23.53	5	49.246	280	15.00	60
17	16.38	148	25.22	64	41.496	327	11.28	26	19.937	302	23.58	$\overline{13}$	49.526	291	14.40	18
27	17.86	151	24.58	21	41.823	334	11.02	31	20.239	309	23.45	30	49.817	297	14.22	$\overline{27}$
Okt. 7	19.37	151	24.37	$\overline{23}$	42.157	338	10.71	34	20.548	312	23.15	47	50.114	299	14.49	72
17	20.88	148	24.60	67	42.495	336	10.37	37	20.860	312	22.68	63	50.413	296	15.21	114
27	22.36	141	25.27	112	42.831	330	10.00	38	21.172	305	22.05	74	50.709	288	16.35	154
Nov. 6	23.77	133	26.39	155	43.161	317	9.62	35	21.477	294	21.31	83	50.997	273	17.89	187
16	25.10	120	27.94	195	43.478	297	9.27	29	21.771	275	20.48	88	51.270	251	19.76	213
26	26.30	104	29.89	232	43.775	271	8.98	22	22.046	251	19.60	89	51.521	224	21.89	232
Dez. 6	27.34	86	32.21	263	44.046	236	8.76	12	22.297	219	18.71	84	51.745	188	24.21	242
16	28.20	64	34.84	286	44.282	194	8.64	0	22.516	179	17.87	78	51.933	148	26.63	244
26	^{31}28.84	40	37.70	300	^{32}44.476	147	8.64	10	^{33}22.695	136	17.09	67	^{33}52.081	103	29.07	238
35	29.24		40.70		44.623		8.74		22.831		16.42		52.184		31.45	
Mittl. Ort	13.61		37.75		40.286		7.56		18.863		15.86		48.808		30.48	
sec δ, tg δ	5.554		+5.463		1.105		+0.470		1.026		+0.230		1.044		−0.299	
a, *a′*	+10.3		−3.2		+3.7		−3.5		+3.4		−3.7		+2.7		−3.7	
b, *b′*	− 0.06		−0.99		−0.01		−0.98		0.00		−0.98		0.00		−0.98	

[1]) Ort des Hauptsterns; die jährliche Parallaxe (0.″377) ist bereits berücksichtigt.

*) Bei Stern 254), 256) und 257) lies Jan. 1.

Tag		1177) 16 Monocerotis AR.		1177) 16 Monocerotis Dekl.		258) 18 Monocerotis AR.		258) 18 Monocerotis Dekl.		262) α Pictoris AR.		262) α Pictoris Dekl.		261) ϑ Geminorum AR.		261) ϑ Geminorum Dekl.	
1947		$6^h\ 43^m$		$+8°\ 38'$		$6^h\ 45^m$		$+2°\ 28'$		$6^h\ 47^m$		$-61°\ 52'$		$6^h\ 49^m$		$+34°\ 1'$	
Jan.	1	39.309	100	43.96	85	6.173	97	20.66	122	41.47	1	58.35	358	18.241	130	39.68	73
	10	[2] 39.409	51	43.11	71	[2] 6.270	47	19.44	108	[3] 41.46	11	61.93	341	[3] 18.371	70	40.41	82
	20	39.460	2	42.40	56	6.317	0	18.36	91	41.35	20	65.34	314	18.441	12	41.23	88
	30	39.462	$\overline{45}$	41.84	43	6.317	47	17.45	73	41.15	27	68.48	280	18.453	$\overline{44}$	42.11	88
Febr.	9	39.417	87	41.41	28	6.270	89	16.72	56	40.88	35	71.28	238	18.409	96	42.99	85
	19	39.330	122	41.13	16	6.181	123	16.16	37	40.53	40	73.66	192	18.313	139	43.84	76
März	1	39.208	149	40.97	5	6.058	148	15.79	21	40.13	45	75.58	142	18.174	172	44.60	64
	11	39.059	164	40.92	$\overline{6}$	5.910	165	15.58	5	39.68	47	77.00	89	18.002	192	45.24	49
	21	38.895	170	40.98	14	5.745	170	15.53	$\overline{11}$	39.21	48	77.89	36	17.810	201	45.73	32
	31	38.725	165	41.12	24	5.575	166	15.64	25	38.73	48	78.25	$\overline{18}$	17.609	196	46.05	13
April	10	38.560	151	41.36	31	5.409	152	15.89	39	38.25	46	78.07	70	17.413	181	46.18	$\overline{4}$
	20	38.409	128	41.67	40	5.257	130	16.28	54	37.79	43	77.37	122	17.232	155	46.14	20
	30	38.281	99	42.07	47	5.127	102	16.82	66	37.36	38	76.15	169	17.077	120	45.94	35
Mai	10	38.182	65	42.54	56	5.025	68	17.48	80	36.98	34	74.46	213	16.957	81	45.59	46
	20	38.117	27	43.10	63	4.957	32	18.28	91	36.64	27	72.33	252	16.876	36	45.13	56
	30	38.090	$\overline{11}$	43.73	71	4.925	$\overline{7}$	19.19	101	36.37	20	69.81	285	16.840	$\overline{11}$	44.57	62
Juni	9	38.101	51	44.44	78	4.932	45	20.20	110	36.17	13	66.96	311	16.851	57	43.95	66
	19	38.152	89	45.22	81	4.977	83	21.30	116	36.04	5	63.85	328	16.908	102	43.29	67
	29	38.241	124	46.03	84	5.060	118	22.46	118	35.99	$\overline{2}$	60.57	338	17.010	145	42.62	67
Juli	9	38.365	158	46.87	84	5.178	150	23.64	118	36.01	10	57.19	337	17.155	185	41.95	65
	19	38.523	188	47.71	81	5.328	180	24.82	113	36.11	18	53.82	328	17.340	221	41.30	62
	29	38.711	213	48.52	74	5.508	208	25.95	104	36.29	25	50.54	307	17.561	253	40.68	60
Aug.	8	38.924	237	49.26	63	5.716	229	26.99	90	36.54	31	47.47	278	17.814	281	40.08	57
	18	39.161	257	49.89	50	5.945	250	27.89	73	36.85	37	44.69	238	18.095	304	39.51	53
	28	39.418	272	50.39	33	6.195	267	28.62	52	37.22	42	42.31	189	18.399	325	38.98	51
Sept.	7	39.690	287	50.72	14	6.462	280	29.14	27	37.64	46	40.42	134	18.724	341	38.47	48
	17	39.977	297	50.86	$\overline{8}$	6.742	290	29.41	0	38.10	49	39.08	73	19.065	353	37.99	44
	27	40.274	302	50.78	29	7.032	298	29.41	27	38.59	51	38.35	8	19.418	363	37.55	40
Okt.	7	40.576	307	50.49	50	7.330	302	29.14	55	39.10	51	38.27	$\overline{59}$	19.781	367	37.15	35
	17	40.883	306	49.99	70	7.632	301	28.59	81	39.61	49	38.86	124	20.148	368	36.80	29
	27	41.189	301	49.29	87	7.933	295	27.78	104	40.10	47	40.10	185	20.516	362	36.51	19
Nov.	6	41.490	289	48.42	99	8.228	283	26.74	121	40.57	43	41.95	241	20.878	349	36.32	9
	16	41.779	271	47.43	107	8.511	266	25.53	135	41.00	36	44.36	287	21.227	329	36.23	$\overline{4}$
	26	42.050	247	46.36	111	8.777	241	24.18	142	41.36	30	47.23	324	21.556	301	36.27	19
Dez.	6	42.297	214	45.25	109	9.018	210	22.76	144	41.66	23	50.47	350	21.857	264	36.46	34
	16	42.511	177	44.16	104	9.228	172	21.32	140	41.89	13	53.97	363	22.121	219	36.80	50
	26	42.688	132	43.12	93	9.400	128	19.92	131	42.02	4	57.60	364	22.340	168	37.30	63
	35	[33] 42.820		42.19		[33] 9.528		18.61		[34] 42.06		61.24		[34] 22.508		37.93	
Mittl. Ort		38.948		41.63		5.787		18.24		38.85		62.53		17.809		37.56	
sec δ, tg δ		1.011		+0.152		1.001		+0.043		2.122		−1.872		1.207		+0.675	
a, a′		+3.3		−3.8		+3.1		−3.9		+0.6		−4.1		+4.0		−4.3	
b, b′		0.00		−0.98		0.00		−0.98		+0.03		−0.98		−0.01		−0.98	

Scheinbare Sternörter 1947

Tag	266) ϑ Canis maj. AR.	266) ϑ Canis maj. Dekl.	260) 24 H. Camelop. AR.	260) 24 H. Camelop. Dekl.	268) ε Canis maj. AR.	268) ε Canis maj. Dekl.	269) ζ Geminorum AR.	269) ζ Geminorum Dekl.
1947	6^h 51^m	$-11°$ $57'$	6^h 52^m	$+77°$ $2'$	6^h 56^m	$-28°$ $53'$	7^h 0^m	$+20°$ $38'$
	s	"	s	"	s	"	s	"
Jan. 1	44.101 90	72.12 205	25.52 28	59.72 295	33.310 76	51.74 285	58.304 129	61.42 14
10	[4] 44.191 40	74.17 190	[4] 25.80 8	62.67 298	[5] 33.386 23	54.59 269	[6] 58.433 76	61.28 2
20	44.231 9	76.07 168	25.88 13	65.65 288	33.409 30	57.28 245	58.509 23	61.26 10
30	44.222 55	77.75 144	25.75 31	68.53 268	33.379 81	59.73 215	58.532 28	61.36 20
Febr. 9	44.167 97	79.19 117	25.44 49	71.21 239	33.298 125	61.88 181	58.504 75	61.56 27
19	44.070 132	80.36 90	24.95 64	73.60 200	33.173 162	63.69 144	58.429 115	61.83 30
März 1	43.938 158	81.26 60	24.31 74	75.60 153	33.011 191	65.13 104	58.314 145	62.13 32
11	43.780 175	81.86 32	23.57 82	77.13 102	32.820 210	66.17 64	58.169 165	62.45 31
21	43.605 181	82.18 2	22.75 86	78.15 47	32.610 217	66.81 22	58.004 175	62.76 28
31	43.424 178	82.20 25	21.89 85	78.62 8	32.393 215	67.03 19	57.829 173	63.04 23
April 10	43.246 166	81.95 53	21.04 81	78.54 62	32.178 203	66.84 59	57.656 160	63.27 20
20	43.080 145	81.42 79	20.23 73	77.92 113	31.975 183	66.25 97	57.496 139	63.47 15
30	42.935 118	80.63 103	19.50 62	76.79 157	31.792 155	65.28 134	57.357 111	63.62 12
Mai 10	42.817 87	79.60 126	18.88 49	75.22 196	31.637 123	63.94 168	57.246 77	63.74 10
20	42.730 50	78.34 147	18.39 34	73.26 227	31.514 85	62.26 197	57.169 38	63.84 8
30	42.680 12	76.87 165	18.05 19	70.99 252	31.429 45	60.29 222	57.131 1	63.92 8
Juni 9	42.668 25	75.22 178	17.86 1	68.47 268	31.384 4	58.07 242	57.132 42	64.00 7
19	42.693 63	73.44 187	17.85 15	65.79 276	31.380 37	55.65 256	57.174 82	64.07 9
29	42.756 99	71.57 192	18.00 32	63.03 277	31.417 78	53.09 263	57.256 119	64.16 8
Juli 9	42.855 133	69.65 191	18.32 48	60.26 272	31.495 117	50.46 263	57.375 154	64.24 8
19	42.988 164	67.74 184	18.80 62	57.54 259	31.612 152	47.83 254	57.529 186	64.32 6
29	43.152 193	65.90 170	19.42 75	54.95 241	31.764 187	45.29 238	57.715 215	64.38 4
Aug. 8	43.345 218	64.20 151	20.17 88	52.54 219	31.951 217	42.91 213	57.930 240	64.42 2
18	43.563 240	62.69 125	21.05 98	50.35 190	32.168 245	40.78 181	58.170 263	64.40 7
28	43.803 258	61.44 95	22.03 106	48.45 159	32.413 268	38.97 142	58.433 281	64.33 16
Sept. 7	44.061 275	60.49 59	23.09 114	46.86 124	32.681 288	37.55 96	58.714 297	64.17 25
17	44.336 286	59.90 19	24.23 118	45.62 86	32.969 302	36.59 46	59.011 312	63.92 35
27	44.622 295	59.71 20	25.41 122	44.76 46	33.271 314	36.13 7	59.323 321	63.57 44
Okt. 7	44.917 300	59.91 61	26.63 123	44.30 3	33.585 318	36.20 61	59.644 327	63.13 54
17	45.217 299	60.52 101	27.86 122	44.27 41	33.903 318	36.81 113	59.971 330	62.59 61
27	45.516 293	61.53 137	29.08 118	44.68 85	34.221 310	37.94 162	60.301 327	61.98 65
Nov. 6	45.809 282	62.90 167	30.26 111	45.53 128	34.531 295	39.56 205	60.628 318	61.33 66
16	46.091 263	64.57 192	31.37 103	46.81 170	34.826 273	41.61 242	60.946 302	60.67 64
26	46.354 237	66.49 209	32.40 91	48.51 208	35.099 242	44.03 269	61.248 278	60.03 59
Dez. 6	46.591 205	68.58 218	33.31 76	50.59 242	35.341 205	46.72 286	61.526 246	59.44 49
16	46.796 166	70.76 220	34.07 60	53.01 268	35.546 161	49.58 295	61.772 209	58.95 38
26	46.962 121	72.96 215	34.67 41	55.69 287	35.707 111	52.53 292	61.981 162	58.57 26
35*)	[35] 47.083	75.11	[35] 35.08	58.56	[36] 35.818	55.45	[37] 62.143	58.31
Mittl. Ort	43.594	75.06	22.00	57.46	32.521	55.54	57.951	59.29
sec δ, tg δ	1.022	−0.212	4.462	+4.349	1.142	−0.552	1.069	+0.377
a, *a′*	+2.8	−4.5	+8.7	−4.5	+2.4	−4.9	+3.6	−5.3
b, *b′*	0.00	−0.97	−0.07	−0.97	+0.01	−0.97	−0.01	−0.96

*) Bei Stern 268) und 269) lies Dez. 36.

Tag	271) γ Canis maj. AR.		271) γ Canis maj. Dekl.		273) δ Canis maj. AR.		273) δ Canis maj. Dekl.		274) 63 Aurigae AR.		274) 63 Aurigae Dekl.		277) λ Geminorum AR.		277) λ Geminorum Dekl.	
1947	$7^h\ 1^m$		$-15°32'$		$7^h\ 6^m$		$-26°18'$		$7^h\ 7^m$		$+39°24'$		$7^h\ 15^m$		$+16°38'$	
	s		″		s		″		s		″		s		″	
Jan. 1	(6) 22.131	96	69.42	227	(7) 14.841	90	23.85	278	(8) 61.229	159	33.76	100	(10) 3.192	139	17.83	45
10	22.227	46	71.69	211	14.931	37	26.63	262	61.388	96	34.76	112	3.331	88	17.38	30
20	22.273	4	73.80	190	14.968	15	29.25	240	61.484	33	35.88	119	3.419	35	17.08	16
30	22.269	52	75.70	164	14.953	66	31.65	212	61.517	29	37.07	121	3.454	16	16.92	2
Febr. 9	22.217	94	77.34	137	14.887	111	33.77	179	61.488	86	38.28	115	3.438	62	16.90	8
19	22.123	131	78.71	105	14.776	149	35.56	144	61.402	135	39.43	106	3.376	103	16.98	16
März 1	21.992	158	79.76	75	14.627	178	37.00	107	61.267	174	40.49	90	3.273	135	17.14	22
11	21.834	177	80.51	44	14.449	198	38.07	67	61.093	200	41.39	71	3.138	157	17.36	26
21	21.657	185	80.95	11	14.251	208	38.74	28	60.893	213	42.10	49	2.981	168	17.62	28
31	21.472	183	81.06	19	14.043	207	39.02	12	60.680	213	42.59	26	2.813	168	17.90	27
April 10	21.289	173	80.87	50	13.836	196	38.90	50	60.467	200	42.85	2	2.645	159	18.17	27
20	21.116	153	80.37	79	13.640	178	38.40	87	60.267	177	42.87	21	2.486	141	18.44	28
30	20.963	127	79.58	107	13.462	153	37.53	122	60.090	144	42.66	41	2.345	115	18.72	25
Mai 10	20.836	97	78.51	131	13.309	121	36.31	154	59.946	104	42.25	59	2.230	83	18.97	26
20	20.739	62	77.20	155	13.188	86	34.77	184	59.842	60	41.66	75	2.147	48	19.23	26
30	20.677	25	75.65	174	13.102	47	32.93	208	59.782	12	40.91	86	2.099	10	19.49	27
Juni 9	20.652	14	73.91	190	13.055	8	30.85	228	59.770	37	40.05	95	2.089	28	19.76	28
19	20.666	50	72.01	200	13.047	32	28.57	242	59.807	85	39.10	100	2.117	65	20.04	28
29	20.716	87	70.01	205	13.079	71	26.15	250	59.892	130	38.10	103	2.182	102	20.32	28
Juli 9	20.803	122	67.96	206	13.150	108	23.65	251	60.022	174	37.07	103	2.284	137	20.60	26
19	20.925	154	65.90	198	13.258	144	21.14	243	60.196	213	36.04	103	2.421	167	20.86	24
29	21.079	183	63.92	185	13.402	177	18.71	228	60.409	250	35.01	100	2.588	197	21.10	18
Aug. 8	21.262	210	62.07	165	13.579	208	16.43	206	60.659	281	34.01	95	2.785	223	21.28	11
18	21.472	234	60.42	138	13.787	234	14.37	176	60.940	308	33.06	91	3.008	245	21.39	2
28	21.706	254	59.04	106	14.021	259	12.61	138	61.248	334	32.15	86	3.253	266	21.41	10
Sept. 7	21.960	272	57.98	69	14.280	279	11.23	95	61.582	354	31.29	78	3.519	283	21.31	23
17	22.232	286	57.29	27	14.559	296	10.28	47	61.936	370	30.51	71	3.802	298	21.08	36
27	22.518	296	57.02	16	14.855	307	9.81	4	62.306	384	29.80	63	4.100	311	20.72	51
Okt. 7	22.814	302	57.18	60	15.162	314	9.85	56	62.690	392	29.17	52	4.411	319	20.21	64
17	23.116	303	57.78	103	15.476	316	10.41	107	63.082	396	28.65	40	4.730	324	19.57	75
27	23.419	299	58.81	141	15.792	311	11.48	155	63.478	393	28.25	25	5.054	323	18.82	84
Nov. 6	23.718	288	60.22	176	16.103	297	13.03	197	63.871	382	28.00	8	5.377	316	17.98	89
16	24.006	270	61.98	204	16.400	278	15.00	233	64.253	364	27.92	11	5.693	303	17.09	90
26	24.276	244	64.02	224	16.678	250	17.33	261	64.617	337	28.03	30	5.996	281	16.19	87
Dez. 6	24.520	212	66.26	236	16.928	214	19.94	277	64.954	300	28.33	51	6.277	253	15.32	79
16	24.732	173	68.62	240	17.142	172	22.71	286	65.254	253	28.84	71	6.530	215	14.53	69
26	24.905	128	71.02	235	17.314	124	25.57	285	65.507	199	29.55	88	6.745	172	13.84	56
36	25.033		73.37		17.438		28.42		65.706		30.43		6.917		13.28	
Mittl. Ort	21.587		72.92		14.122		28.14		60.728		32.27		2.851		15.62	
sec δ, tg δ	1.038		−0.278		1.116		−0.495		1.294		+0.822		1.044		+0.299	
a, *a′*	+2.7		−5.3		+2.4		−5.7		+4.1		−5.9		+3.5		−6.4	
b, *b′*	0.00		−0.96		+0.01		−0.96		−0.02		−0.96		−0.01		−0.95	

Tag	278) π Puppis AR.		278) π Puppis Dekl.		281) δ Volantis AR.		281) δ Volantis Dekl.		279) δ Geminorum AR.		279) δ Geminorum Dekl.		280) 19 Lyncis sq AR.		280) 19 Lyncis sq Dekl.	
1947	$7^h\ 15^m$		$-36°\ 59'$		$7^h\ 16^m$		$-67°\ 51'$		$7^h\ 16^m$		$+22°\ 4'$		$7^h\ 18^m$		$+55°\ 22'$	
Jan. 1	$_{10}$17.175	88	58.56	320	55.17	2	29.39	370	$_{10}$57.870	146	55.88	11	33.888	210	61.62	188
10	17.263	30	61.76	306	$_{10}$55.19	10	33.09	361	58.016	93	55.77	4	$_{10}$34.098	127	63.50	200
20	17.293	28	64.82	285	55.09	20	36.70	341	58.109	40	55.81	17	34.225	42	65.50	204
30	17.265	83	67.67	256	54.89	31	40.11	313	58.149	13	55.98	27	34.267	41	67.54	200
Febr. 9	17.182	133	70.23	221	54.58	40	43.24	278	58.136	62	56.25	36	34.226	119	69.54	188
19	17.049	175	72.44	182	54.18	48	46.02	234	58.074	104	56.61	39	34.107	186	71.42	168
März 1	16.874	209	74.26	139	53.70	54	48.36	189	57.970	137	57.00	41	33.921	240	73.10	140
11	16.665	231	75.65	96	53.16	58	50.25	138	57.833	161	57.41	40	33.681	278	74.50	108
21	16.434	243	76.61	50	52.58	60	51.63	85	57.672	173	57.81	35	33.403	299	75.58	72
31	16.191	244	77.11	4	51.98	62	52.48	32	57.499	174	58.16	30	33.104	304	76.30	33
April 10	15.947	236	77.15	41	51.36	60	52.80	22	57.325	164	58.46	24	32.800	291	76.63	6
20	15.711	218	76.74	84	50.76	58	52.58	74	57.161	145	58.70	18	32.509	264	76.57	43
30	15.493	192	75.90	126	50.18	53	51.84	125	57.016	119	58.88	12	32.245	224	76.14	78
Mai 10	15.301	161	74.64	165	49.65	48	50.59	173	56.897	87	59.00	7	32.021	175	75.36	109
20	15.140	124	72.99	199	49.17	42	48.86	216	56.810	51	59.07	3	31.846	117	74.27	136
30	15.016	83	71.00	229	48.75	34	46.70	255	56.759	12	59.10	0	31.729	55	72.91	157
Juni 9	14.933	41	68.71	254	48.41	25	44.15	287	56.747	28	59.10	1	31.674	9	71.34	173
19	14.892	3	66.17	272	48.16	17	41.28	311	56.775	67	59.09	3	31.683	73	69.61	185
29	14.895	46	63.45	283	47.99	7	38.17	327	56.842	105	59.06	5	31.756	137	67.76	191
Juli 9	14.941	89	60.62	286	47.92	3	34.90	334	56.947	140	59.01	6	31.893	196	65.85	193
19	15.030	130	57.76	280	47.95	12	31.56	332	57.087	173	58.95	9	32.089	253	63.92	190
29	15.160	169	54.96	266	48.07	21	28.24	318	57.260	202	58.86	12	32.342	304	62.02	184
Aug. 8	15.329	206	52.30	241	48.28	30	25.06	295	57.462	230	58.74	18	32.646	351	60.18	174
18	15.535	239	49.89	210	48.58	39	22.11	262	57.692	253	58.56	23	32.997	391	58.44	161
28	15.774	268	47.79	170	48.97	46	19.49	219	57.945	274	58.33	32	33.388	428	56.83	146
Sept. 7	16.042	294	46.09	123	49.43	53	17.30	167	58.219	293	58.01	40	33.816	458	55.37	128
17	16.336	315	44.86	69	49.96	57	15.63	109	58.512	308	57.61	48	34.274	484	54.09	108
27	16.651	330	44.17	13	50.53	60	14.54	46	58.820	321	57.13	58	34.758	504	53.01	84
Okt. 7	16.981	339	44.04	45	51.13	62	14.08	21	59.141	331	56.55	65	35.262	517	52.17	59
17	17.320	342	44.49	103	51.75	62	14.29	88	59.472	335	55.90	71	35.779	522	51.58	31
27	17.662	335	45.52	158	52.37	59	15.17	152	59.807	335	55.19	73	36.301	519	51.27	1
Nov. 6	17.997	322	47.10	209	52.96	55	16.69	212	60.142	328	54.46	73	36.820	506	51.26	30
16	18.319	298	49.19	251	53.51	48	18.81	264	60.470	315	53.73	70	37.326	481	51.56	62
26	18.617	267	51.70	285	53.99	41	21.45	308	60.785	293	53.03	61	37.807	444	52.18	94
Dez. 6	18.884	227	54.55	308	54.40	31	24.53	341	61.078	263	52.42	51	38.251	395	53.12	124
16	19.111	179	57.63	323	54.71	21	27.94	362	61.341	225	51.91	38	38.646	335	54.36	152
26	19.290	125	60.86	325	54.92	9	31.56	372	61.566	181	51.53	22	38.981	262	55.88	174
36	19.415		64.11		55.01		35.28		61.747		51.31		39.243		57.62	
Mittl. Ort	16.201		64.10		51.75		36.81		57.518		53.96		32.973		60.91	
sec δ, tg δ	1.252		−0.754		2.653		−2.458		1.079		+0.406		1.760		+1.449	
a, a'	+2.1		−6.5		0.0		−6.6		+3.6		−6.6		+4.9		−6.7	
b, b'	+0.02		−0.95		+0.05		−0.94		−0.01		−0.94		−0.03		−0.94	

Tag	282) ι Geminorum				285) β Canis min.				284) Grb 1308 Caml				286) ρ Geminorum			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$7^h\ 22^m$		$+27°\ 54'$		$7^h\ 24^m$		$+8°\ 23'$		$7^h\ 25^m$		$+68°\ 34'$		$7^h\ 25^m$		$+31°\ 53'$	
	s		"		s		"		s		"		s		"	
Jan. 1	26.573	159	20.18	24	16.933	140	54.42	100	24.80	30	37.03	249	42.672	169	31.18	48
11	26.732	104	20.42	38	17.073	90	53.42	84	25.10	17	39.52	261	42.841	111	31.66	63
20	26.836	47	20.80	51	17.163	40	52.58	67	25.27	4	42.13	264	42.952	53	32.29	76
30	26.883	$\overline{8}$	21.31	60	17.203	$\overline{10}$	51.91	50	25.31	$\overline{8}$	44.77	256	43.005	$\overline{5}$	33.05	83
Febr. 9	26.875	60	21.91	65	17.193	56	51.41	33	25.23	20	47.33	239	43.000	59	33.88	86
19	26.815	105	22.56	66	17.137	96	51.08	19	25.03	31	49.72	211	42.941	107	34.74	84
März 1	26.710	141	23.22	62	17.041	127	50.89	5	24.72	39	51.83	175	42.834	144	35.58	78
11	26.569	166	23.84	55	16.914	150	50.84	$\overline{6}$	24.33	45	53.58	133	42.690	171	36.36	67
21	26.403	180	24.39	46	16.764	162	50.90	16	23.88	49	54.91	87	42.519	186	37.03	53
31	26.223	182	24.85	34	16.602	164	51.06	25	23.39	49	55.78	38	42.333	190	37.56	38
April 10	26.041	174	25.19	22	16.438	157	51.31	33	22.90	49	56.16	$\overline{12}$	42.143	181	37.94	22
20	25.867	155	25.41	9	16.281	140	51.64	41	22.41	45	56.04	59	41.962	163	38.16	5
30	25.712	128	25.50	$\overline{2}$	16.141	117	52.05	47	21.96	40	55.45	104	41.799	136	38.21	$\overline{10}$
Mai 10	25.584	96	25.48	12	16.024	87	52.52	53	21.56	32	54.41	144	41.663	102	38.11	24
20	25.488	58	25.36	20	15.937	55	53.05	59	21.24	24	52.97	178	41.561	64	37.87	36
30	25.430	17	25.16	28	15.882	20	53.64	65	21.00	15	51.19	207	41.497	22	37.51	45
Juni 9	25.413	$\overline{23}$	24.88	33	15.862	$\overline{16}$	54.29	69	20.85	5	49.12	229	41.475	$\overline{20}$	37.06	54
19	25.436	64	24.55	37	15.878	53	54.98	72	20.80	$\overline{5}$	46.83	243	41.495	63	36.52	59
29	25.500	104	24.18	41	15.931	87	55.70	73	20.85	15	44.40	252	41.558	104	35.93	63
Juli 9	25.604	140	23.77	42	16.018	120	56.43	71	21.00	24	41.88	255	41.662	143	35.30	67
19	25.744	176	23.35	45	16.138	151	57.14	68	21.24	33	39.33	252	41.805	178	34.63	69
29	25.920	207	22.90	48	16.289	179	57.82	60	21.57	42	36.81	242	41.983	212	33.94	70
Aug. 8	26.127	235	22.42	50	16.468	204	58.42	49	21.99	50	34.39	229	42.195	242	33.24	72
18	26.362	261	21.92	54	16.672	229	58.91	35	22.49	56	32.10	210	42.437	269	32.52	73
28	26.623	284	21.38	57	16.901	249	59.26	17	23.05	63	30.00	187	42.706	293	31.79	74
Sept. 7	26.907	303	20.81	61	17.150	267	59.43	$\overline{2}$	23.68	67	28.13	162	42.999	314	31.05	75
17	27.210	321	20.20	65	17.417	284	59.41	23	24.35	72	26.51	132	43.313	332	30.30	75
27	27.531	334	19.55	69	17.701	297	59.18	45	25.07	75	25.19	99	43.645	347	29.55	75
Okt. 7	27.865	345	18.86	69	17.998	307	58.73	67	25.82	77	24.20	62	43.992	358	28.80	72
17	28.210	351	18.17	69	18.305	312	58.06	88	26.59	78	23.58	25	44.350	365	28.08	68
27	28.561	352	17.48	66	18.617	313	57.18	104	27.37	78	23.33	$\overline{16}$	44.715	367	27.40	60
Nov. 6	28.913	346	16.82	60	18.930	309	56.14	118	28.15	75	23.49	57	45.082	360	26.80	49
16	29.259	332	16.22	50	19.239	296	54.96	126	28.90	71	24.06	99	45.442	347	26.31	37
26	29.591	310	15.72	38	19.535	276	53.70	130	29.61	65	25.05	139	45.789	325	25.94	21
Dez. 6	29.901	280	15.34	23	19.811	249	52.40	127	30.26	58	26.44	176	46.114	293	25.73	2
16	30.181	241	15.11	6	20.060	213	51.13	121	30.84	48	28.20	208	46.407	253	25.71	$\overline{16}$
26	30.422	195	15.05	$\overline{11}$	20.273	172	49.92	110	31.32	38	30.28	234	46.660	205	25.87	35
36	30.617		15.16		20.445		48.82		31.70		32.62		46.865		26.22	
Mittl. Ort	26.196		18.64		16.594		51.68		22.95		36.85		42.265		29.93	
sec δ, tg δ	1.132		+0.530		1.011		+0.148		2.738		+2.549		1.178		+0.622	
a, a'	+3.7		−7.1		+3.3		−7.2		+6.2		−7.3		+3.8		−7.3	
b, b'	−0.01		−0.94		0.00		−0.93		−0.06		−0.93		−0.02		−0.93	

Scheinbare Sternörter 1947

Tag	287) α Geminorum¹) AR.		Dekl.		289) 25 Monocerotis AR.		Dekl.		291) α Canis min.²) AR.		Dekl.		292) 24 Lyncis AR.		Dekl.	
1947	$7^h\ 31^m$		+32° 0′		$7^h\ 34^m$		−3° 59′		$7^h\ 36^m$		+5° 21′		$7^h\ 38^m$		+58° 50′	
	s		″		s		″		s		″		s		″	
Jan. 1	13.580	174	24.83	46	38.922	138	24.62	175	32.012	145	46.15	125	33.048	258	11.81	197
11	$_{14}$13.754	117	25.29	62	$_{15}$39.060	90	26.37	161	$_{15}$32.157	95	44.90	107	$_{16}$33.306	169	13.78	213
20	13.871	58	25.91	74	39.150	41	27.98	142	32.252	44	43.83	90	33.475	76	15.91	221
30	13.929	0	26.65	83	39.191	$\overline{9}$	29.40	121	32.296	$\overline{5}$	42.93	71	33.551	$\overline{16}$	18.12	221
Febr. 9	13.929	54	27.48	87	39.182	55	30.61	98	32.291	51	42.22	52	33.535	103	20.33	211
19	13.875	103	28.35	86	39.127	95	31.59	75	32.240	91	41.70	35	33.432	181	22.44	193
März 1	13.772	142	29.21	80	39.032	126	32.34	51	32.149	124	41.35	18	33.251	245	24.37	166
11	13.630	169	30.01	69	38.906	149	32.85	29	32.025	148	41.17	3	33.006	292	26.03	134
21	13.461	186	30.70	56	38.757	163	33.14	8	31.877	160	41.14	$\overline{10}$	32.714	323	27.37	95
31	13.275	190	31.26	41	38.594	166	33.22	$\overline{14}$	31.717	164	41.24	21	32.391	334	28.32	54
April 10	13.085	182	31.67	24	38.428	160	33.08	33	31.553	158	41.45	33	32.057	328	28.86	13
20	12.903	166	31.91	7	38.268	147	32.75	52	31.395	143	41.78	42	31.729	305	28.99	$\overline{29}$
30	12.737	139	31.98	$\overline{9}$	38.121	125	32.23	70	31.252	121	42.20	51	31.424	268	28.70	68
Mai 10	12.598	106	31.89	23	37.996	99	31.53	87	31.131	94	42.71	59	31.156	220	28.02	104
20	12.492	69	31.66	35	37.897	68	30.66	102	31.037	62	43.30	67	30.936	162	26.98	136
30	12.423	28	31.31	47	37.829	35	29.64	115	30.975	29	43.97	74	30.774	98	25.62	162
Juni 9	12.395	$\overline{14}$	30.84	54	37.794	1	28.49	125	30.946	$\overline{6}$	44.71	79	30.676	31	24.00	184
19	12.409	57	30.30	61	37.793	$\overline{33}$	27.24	134	30.952	41	45.50	82	30.645	$\overline{38}$	22.16	199
29	12.466	97	29.69	67	37.826	68	25.90	137	30.993	75	46.32	84	30.683	106	20.17	211
Juli 9	12.563	136	29.02	70	37.894	100	24.53	137	31.068	108	47.16	81	30.789	172	18.06	216
19	12.699	172	28.32	72	37.994	131	23.16	133	31.176	139	47.97	77	30.961	235	15.90	217
29	12.871	206	27.60	75	38.125	159	21.83	124	31.315	167	48.74	69	31.196	294	13.73	213
Aug. 8	13.077	236	26.85	77	38.284	187	20.59	108	31.482	193	49.43	56	31.490	347	11.60	205
18	13.313	263	26.08	78	38.471	211	19.51	89	31.675	217	49.99	41	31.837	396	9.55	194
28	13.576	288	25.30	80	38.682	234	18.62	65	31.892	239	50.40	22	32.233	439	7.61	179
Sept. 7	13.864	310	24.50	82	38.916	254	17.97	36	32.131	259	50.62	0	32.672	478	5.82	160
17	14.174	329	23.68	81	39.170	271	17.61	5	32.390	275	50.62	25	33.150	510	4.22	139
27	14.503	345	22.87	81	39.441	287	17.56	$\overline{29}$	32.665	290	50.37	49	33.660	537	2.83	115
Okt. 7	14.848	357	22.06	79	39.728	298	17.85	62	32.955	302	49.88	74	34.197	556	1.68	86
17	15.205	365	21.27	73	40.026	305	18.47	95	33.257	308	49.14	97	34.753	568	0.82	56
27	15.570	367	20.54	66	40.331	307	19.42	125	33.565	310	48.17	117	35.321	569	0.26	23
Nov. 6	15.937	362	19.88	56	40.638	303	20.67	150	33.875	307	47.00	134	35.890	560	0.03	$\overline{12}$
16	16.299	350	19.32	42	40.941	292	22.17	170	34.182	296	45.66	145	36.450	538	0.15	49
26	16.649	328	18.90	26	41.233	272	23.87	184	34.478	278	44.21	151	36.988	503	0.64	85
Dez. 6	16.977	298	18.64	7	41.505	246	25.71	191	34.756	250	42.70	150	37.491	453	1.49	120
16	17.275	258	18.57	$\overline{13}$	41.751	211	27.62	191	35.006	217	41.20	145	37.944	390	2.69	153
26	17.533	211	18.70	31	41.962	170	29.53	185	35.223	175	39.75	135	38.334	314	4.22	180
36	17.744		19.01		42.132		31.38		35.398		38.40		38.648		6.02	
Mittl. Ort	13.176		23.73		38.539		28.54		31.676		43.12		31.975		12.22	
sec δ, tg δ	1.179		+0.625		1.002		−0.070		1.004		+0.094		1.932		+1.654	
a, *a′*	+3.8		−7.8		+3.0		−8.0		+3.2		−8.2		+5.1		−8.4	
b, *b′*	−0.02		−0.92		0.00		−0.92		0.00		−0.91		−0.05		−0.91	

¹) Ort des helleren Sterns.

²) Ort des hellen Sterns; die jährliche Parallaxe (0″291) ist bereits berücksichtigt.

Tag	294) κ Geminorum AR.		Dekl.		295) β Geminorum[1]) AR.		Dekl.		297) ζ Volantis AR.		Dekl.		296) π Geminorum AR.		Dekl.	
1947	$7^h\ 41^m$		$+24°\ 31'$		$7^h\ 42^m$		$+28°\ 9'$		$7^h\ 42^m$		$-72°\ 28'$		$7^h\ 44^m$		$+33°\ 32'$	
	s		″		s		″		s		″		s		″	
Jan. 1	15.335	174	37.92	6	4.867	178	22.29	17	33.49	7	34.38	373	5.933	192	51.81	50
11	[16] 15.509	122	37.86	13	[16] 5.045	123	22.46	35	[17] 33.56	6	38.11	371	[17] 6.125	134	52.31	68
20	15.631	66	37.99	28	5.168	67	22.81	51	33.50	20	41.82	358	6.259	74	52.99	83
30	15.697	11	38.27	41	5.235	10	23.32	62	33.30	34	45.40	337	6.333	14	53.82	93
Febr. 9	15.708	41	38.68	50	5.245	44	23.94	69	32.96	45	48.77	306	6.347	42	54.75	97
19	15.667	87	39.18	55	5.201	91	24.63	73	32.51	56	51.83	269	6.305	93	55.72	97
März 1	15.580	124	39.73	57	5.110	129	25.36	71	31.95	64	54.52	227	6.212	134	56.69	92
11	15.456	151	40.30	55	4.981	158	26.07	65	31.31	71	56.79	179	6.078	165	57.61	81
21	15.305	168	40.85	49	4.823	175	26.72	55	30.60	75	58.58	128	5.913	184	58.42	66
31	15.137	174	41.34	41	4.648	181	27.27	45	29.85	76	59.86	77	5.729	190	59.08	51
April 10	14.963	168	41.75	33	4.467	176	27.72	32	29.09	77	60.63	23	5.539	187	59.59	32
20	14.795	154	42.08	23	4.291	161	28.04	19	28.32	75	60.86	31	5.352	171	59.91	13
30	14.641	131	42.31	14	4.130	137	28.23	6	27.57	72	60.55	83	5.181	147	60.04	5
Mai 10	14.510	103	42.45	5	3.993	107	28.29	6	26.85	66	59.72	133	5.034	116	59.99	22
20	14.407	68	42.50	3	3.886	72	28.23	18	26.19	59	58.39	180	4.918	79	59.77	37
30	14.339	31	42.47	10	3.814	34	28.05	26	25.60	51	56.59	222	4.839	40	59.40	50
Juni 9	14.308	6	42.37	15	3.780	5	27.79	34	25.09	41	54.37	260	4.799	2	58.90	61
19	14.314	45	42.22	20	3.785	45	27.45	41	24.68	31	51.77	290	4.801	43	58.29	69
29	14.359	83	42.02	24	3.830	83	27.04	45	24.37	19	48.87	312	4.844	85	57.60	77
Juli 9	14.442	118	41.78	29	3.913	121	26.59	51	24.18	8	45.75	326	4.929	124	56.83	82
19	14.560	152	41.49	33	4.034	156	26.08	55	24.10	5	42.49	329	5.053	161	56.01	87
29	14.712	183	41.16	37	4.190	187	25.53	59	24.15	16	39.20	324	5.214	195	55.14	89
Aug. 8	14.895	211	40.79	44	4.377	218	24.94	63	24.31	29	35.96	307	5.409	227	54.25	93
18	15.106	238	40.35	50	4.595	244	24.31	67	24.60	40	32.89	279	5.636	256	53.32	94
28	15.344	262	39.85	57	4.839	270	23.64	73	25.00	50	30.10	243	5.892	283	52.38	96
Sept. 7	15.606	284	39.28	64	5.109	291	22.91	78	25.50	59	27.67	196	6.175	306	51.42	97
17	15.890	303	38.64	72	5.400	311	22.13	81	26.09	66	25.71	141	6.481	328	50.45	96
27	16.193	319	37.92	79	5.711	328	21.32	85	26.75	73	24.30	81	6.809	346	49.49	95
Okt. 7	16.512	333	37.13	85	6.039	342	20.47	87	27.48	75	23.49	15	7.155	361	48.54	91
17	16.845	342	36.28	88	6.381	351	19.60	87	28.23	76	23.34	52	7.516	371	47.63	85
27	17.187	346	35.40	88	6.732	355	18.73	82	28.99	74	23.86	117	7.887	375	46.78	76
Nov. 6	17.533	344	34.52	85	7.087	352	17.91	76	29.73	70	25.03	180	8.262	373	46.02	63
16	17.877	333	33.67	78	7.439	342	17.15	65	30.43	64	26.83	238	8.635	363	45.39	48
26	18.210	316	32.89	67	7.781	323	16.50	51	31.07	54	29.21	286	8.998	342	44.91	30
Dez. 6	18.526	288	32.22	53	8.104	295	15.99	35	31.61	43	32.07	325	9.340	314	44.61	8
16	18.814	252	31.69	37	8.399	257	15.64	16	32.04	30	35.32	354	9.654	275	44.53	13
26	19.066	208	31.32	19	8.656	213	15.48	3	32.34	17	38.86	370	9.929	228	44.66	34
36	19.274		31.13		8.869		15.51		32.51		42.56		10.157		45.00	
Mittl. Ort	14.994		36.48		4.503		21.15		29.17		44.65		5.526		51.14	
sec δ, tg δ	1.099		+0.456		1.134		+0.535		3.322		−3.168		1.200		+0.663	
a, *a′*	+3.6		−8.6		+3.7		−8.6		−0.7		−8.7		+3.9		−8.8	
b, *b′*	−0.01		−0.90		−0.02		−0.90		+0.09		−0.90		−0.02		−0.90	

[1]) Die jährliche Parallaxe (0″.100) ist bereits berücksichtigt.

Scheinbare Sternörter 1947

Tag	300) Grb 1374 Caml AR.		300) Dekl.		303) χ Carinae AR.		303) Dekl.		305) χ Geminorum AR.		305) Dekl.		306) ζ Puppis AR.		306) Dekl.	
1947	7^h 53^m		+74° 3′		7^h 55^m		−52° 50′		8^h 0^m		+27° 56′		8^h 1^m		−39° 50′	
	s		″		s		″		s		″		s		″	
Jan. 1	56.25	46	44.36	257	27.353	130	11.50	364	16.275	200	41.06	7	44.120	145	61.00	337
11	56.71	29	46.93	276	[20] 27.483	55	15.14	362	16.475	146	41.13	28	44.265	84	64.37	332
20*)	[19] 57.00	13	49.69	285	27.538	$\overline{19}$	18.76	348	[21] 16.621	89	41.41	46	[21] 44.349	23	67.69	317
30	57.13	$\overline{4}$	52.54	283	27.519	92	22.24	326	16.710	31	41.87	60	44.372	$\overline{37}$	70.86	295
Febr. 9	57.09	20	55.37	270	27.427	158	25.50	296	16.741	$\overline{23}$	42.47	70	44.335	92	73.81	266
19	56.89	35	58.07	246	27.269	216	28.46	259	16.718	72	43.17	76	44.243	141	76.47	230
März 1	56.54	47	60.53	212	27.053	265	31.05	216	16.646	114	43.93	76	44.102	182	78.77	191
11	56.07	56	62.65	171	26.788	301	33.21	171	16.532	145	44.69	72	43.920	214	80.68	149
21	55.51	64	64.36	123	26.487	326	34.92	122	16.387	165	45.41	65	43.706	234	82.17	104
31	54.87	67	65.59	72	26.161	338	36.14	72	16.222	175	46.06	54	43.472	245	83.21	59
April 10	54.20	67	66.31	19	25.823	339	36.86	20	16.047	173	46.60	42	43.227	245	83.80	12
20	53.53	64	66.50	$\overline{34}$	25.484	329	37.06	$\overline{31}$	15.874	162	47.02	29	42.982	236	83.92	$\overline{33}$
30	52.89	59	66.16	84	25.155	308	36.75	80	15.712	142	47.31	15	42.746	219	83.59	77
Mai 10	52.30	51	65.32	131	24.847	279	35.95	128	15.570	115	47.46	2	42.527	195	82.82	120
20	51.79	42	64.01	172	24.568	242	34.67	173	15.455	83	47.48	$\overline{11}$	42.332	165	81.62	160
30	51.37	31	62.29	208	24.326	200	32.94	213	15.372	48	47.37	21	42.167	130	80.02	195
Juni 9	51.06	18	60.21	238	24.126	152	30.81	247	15.324	11	47.16	31	42.037	93	78.07	225
19	50.88	6	57.83	259	23.974	101	28.34	276	15.313	$\overline{28}$	46.85	40	41.944	52	75.82	250
29	50.82	$\overline{7}$	55.24	275	23.873	47	25.58	297	15.341	65	46.45	47	41.892	10	73.32	268
Juli 9	50.89	19	52.49	283	23.826	$\overline{9}$	22.61	310	15.406	101	45.98	53	41.882	$\overline{32}$	70.64	279
19	51.08	32	49.66	285	23.835	65	19.51	313	15.507	136	45.45	60	41.914	74	67.85	280
29	51.40	44	46.81	281	23.900	121	16.38	306	15.643	168	44.85	66	41.988	116	65.05	274
Aug. 8	51.84	55	44.00	271	24.021	176	13.32	290	15.811	199	44.19	71	42.104	157	62.31	258
18	52.39	64	41.29	255	24.197	228	10.42	264	16.010	228	43.48	78	42.261	197	59.73	232
28	53.03	74	38.74	235	24.425	277	7.78	227	16.238	254	42.70	85	42.458	233	57.41	198
Sept. 7	53.77	82	36.39	208	24.702	321	5.51	182	16.492	279	41.85	90	42.691	268	55.43	156
17	54.59	89	34.31	179	25.023	360	3.69	129	16.771	300	40.95	96	42.959	298	53.87	106
27	55.48	95	32.52	144	25.383	391	2.40	70	17.071	321	39.99	100	43.257	323	52.81	52
Okt. 7	56.43	98	31.08	106	25.774	412	1.70	7	17.392	338	38.99	102	43.580	343	52.29	$\overline{6}$
17	57.41	101	30.02	64	26.186	425	1.63	$\overline{58}$	17.730	350	37.97	103	43.923	355	52.35	66
27	58.42	101	29.38	19	26.611	425	2.21	121	18.080	357	36.94	99	44.278	359	53.01	125
Nov. 6	59.43	100	29.19	$\overline{26}$	27.036	413	3.42	182	18.437	359	35.95	93	44.637	355	54.26	180
16	60.43	96	29.45	74	27.449	389	5.24	237	18.796	351	35.02	81	44.992	339	56.06	229
26	61.39	89	30.19	121	27.838	351	7.61	284	19.147	336	34.21	67	45.331	314	58.35	271
Dez. 6	62.28	81	31.40	164	28.189	304	10.45	321	19.483	311	33.54	50	45.645	278	61.06	303
16	63.09	69	33.04	204	28.493	244	13.66	348	19.794	276	33.04	29	45.923	234	64.09	326
26	63.78	55	35.08	237	28.737	176	17.14	363	20.070	233	32.75	8	46.157	182	67.35	337
36	64.33		37.45		28.913		20.77		20.303		32.67		46.339		70.72	
Mittl. Ort	53.52		45.98		25.824		21.54		15.939		40.29		43.204		70.17	
sec δ, tg δ	3.642		+3.502		1.656		−1.319		1.132		+0.530		1.303		−0.835	
a, *a′*	+7.2		−9.6		+1.5		−9.7		+3.7		−10.0		+2.1		−10.2	
b, *b′*	−0.11		−0.88		+0.04		−0.88		−0.02		−0.87		+0.03		−0.86	

*) Bei Stern 305) und 306) lies Jan. 21.

Tag	307) 27 Lyncis AR.		Dekl.		308) ρ Puppis AR.		Dekl.		309) γ Velorum AR.		Dekl.		311) 20 Puppis AR.		Dekl.	
1947	$8^h\ 4^m$		+51° 39′		$8^h\ 5^m$		−24° 8′		$8^h\ 7^m$		−47° 10′		$8^h\ 10^m$		−15° 37′	
	s		"		s		"		s		"		s		"	
Jan. 1	29.485	266	39.59	144	17.698	155	53.64	283	55.070	151	35.89	355	54.151	166	31.92	245
11	29.751	192	41.03	167	17.853	104	56.47	273	55.221	84	39.44	353	54.317	117	34.37	235
21	29.943	115	42.70	183	17.957	51	59.20	257	55.305	16	42.97	341	54.434	65	36.72	217
30	$_{22}$30.058	36	44.53	191	$_{22}$18.008	2	61.77	234	$_{23}$55.321	49	46.38	321	$_{24}$54.499	14	38.89	196
Febr. 9	30.094	41	46.44	191	18.006	52	64.11	207	55.272	111	49.59	292	54.513	34	40.85	170
19	30.053	111	48.35	183	17.954	97	66.18	176	55.161	167	52.51	256	54.479	77	42.55	141
März 1	29.942	169	50.18	165	17.857	132	67.94	142	54.994	212	55.07	218	54.402	114	43.96	111
11	29.773	215	51.83	142	17.725	161	69.36	106	54.782	247	57.25	173	54.288	141	45.07	81
21	29.558	246	53.25	113	17.564	180	70.42	69	54.535	271	58.98	126	54.147	161	45.88	51
31	29.312	263	54.38	79	17.384	188	71.11	33	54.264	285	60.24	79	53.986	169	46.39	19
April 10	29.049	264	55.17	44	17.196	188	71.44	3	53.979	288	61.03	29	53.817	170	46.58	10
20	28.785	252	55.61	8	17.008	180	71.41	39	53.691	279	61.32	20	53.647	162	46.48	39
30	28.533	226	55.69	28	16.828	163	71.02	74	53.412	263	61.12	67	53.485	147	46.09	66
Mai 10	28.307	191	55.41	61	16.665	142	70.28	106	53.149	239	60.45	114	53.338	126	45.43	93
20	28.116	148	54.80	92	16.523	115	69.22	136	52.910	208	59.31	157	53.212	101	44.50	117
30	27.968	98	53.88	120	16.408	84	67.86	163	52.702	171	57.74	196	53.111	71	43.33	137
Juni 9	27.870	46	52.68	142	16.324	52	66.23	186	52.531	131	55.78	231	53.040	41	41.96	156
19	27.824	8	51.26	161	16.272	18	64.37	204	52.400	86	53.47	259	52.999	9	40.40	171
29	27.832	63	49.65	176	16.254	17	62.33	217	52.314	39	50.88	281	52.990	24	38.69	179
Juli 9	27.895	116	47.89	185	16.271	52	60.16	223	52.275	8	48.07	293	53.014	57	36.90	184
19	28.011	167	46.04	193	16.323	86	57.93	223	52.283	56	45.14	298	53.071	88	35.06	182
29	28.178	216	44.11	195	16.409	120	55.70	214	52.339	106	42.16	294	53.159	119	33.24	174
Aug. 8	28.394	262	42.16	194	16.529	152	53.56	199	52.445	153	39.22	279	53.278	149	31.50	159
18	28.656	305	40.22	190	16.681	183	51.57	176	52.598	200	36.43	254	53.427	178	29.91	139
28	28.961	343	38.32	183	16.864	213	49.81	146	52.798	243	33.89	221	53.605	206	28.52	111
Sept. 7	29.304	379	36.49	172	17.077	240	48.35	109	53.041	284	31.68	179	53.811	231	27.41	78
17	29.683	411	34.77	159	17.317	265	47.26	66	53.325	320	29.89	128	54.042	255	26.63	41
27	30.094	439	33.18	143	17.582	287	46.60	19	53.645	350	28.61	71	54.297	276	26.22	0
Okt. 7	30.533	462	31.75	122	17.869	304	46.41	31	53.995	374	27.90	11	54.573	295	26.22	44
17	30.995	478	30.53	98	18.173	317	46.72	80	54.369	388	27.79	52	54.868	307	26.66	87
27	31.473	488	29.55	71	18.490	323	47.52	128	54.757	393	28.31	115	55.175	315	27.53	128
Nov. 6	31.961	487	28.84	42	18.813	322	48.80	173	55.150	387	29.46	173	55.490	316	28.81	166
16	32.448	477	28.42	9	19.135	312	50.53	212	55.537	369	31.19	227	55.806	309	30.47	198
26	32.925	454	28.33	26	19.447	294	52.65	244	55.906	341	33.46	274	56.115	294	32.45	223
Dez. 6	33.379	420	28.59	60	19.741	267	55.09	267	56.247	301	36.20	311	56.409	269	34.68	241
16	33.799	371	29.19	94	20.008	231	57.76	281	56.548	251	39.31	337	56.678	237	37.09	250
26	34.170	312	30.13	125	20.239	188	60.57	286	56.799	192	42.68	353	56.915	196	39.59	251
36	34.482		31.38		20.427		63.43		56.991		46.21		57.111		42.10	
Mittl. Ort	28.747		40.98		17.158		61.07		53.905		46.36		53.744		38.41	
sec δ, tg δ	1.612		+1.264		1.096		−0.448		1.471		−1.079		1.038		−0.280	
a, *a′*	+4.5		−10.4		+2.6		−10.4		+1.9		−10.6		+2.8		−10.8	
b, *b′*	−0.04		− 0.86		+0.02		− 0.85		+0.04		− 0.85		+0.01		− 0.84	

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Tag	310) Br 1147 Caml				312) β Cancri				314) 31 Lyncis				315) ε Carinae			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$8^h\ 12^m$		$+75°\ 55'$		$8^h\ 13^m$		$+9°\ 20'$		$8^h\ 19^m$		$+43°\ 21'$		$8^h\ 21^m$		$-59°\ 19'$	
	s		"		s		"		s		"		s		"	
Jan. 1	59.37	58	16.13	251	38.769	188	63.97	112	13.334	255	33.98	89	27.496	178	65.13	371
11	59.95	39	18.64	275	38.957	139	62.85	93	13.589	193	34.87	114	27.674	92	68.84	376
21	$_{24}$60.34	21	21.39	290	$_{24}$39.096	89	61.92	74	$_{26}$13.782	126	36.01	134	$_{26}$27.766	5	72.60	370
30	60.55	2	24.29	291	39.185	38	61.18	54	13.908	57	37.35	147	27.771	$\overline{80}$	76.30	353
Febr. 9	60.57	$\overline{17}$	27.20	283	39.223	$\overline{12}$	60.64	36	13.965	$\overline{10}$	38.82	154	27.691	159	79.83	329
19	60.40	33	30.03	263	39.211	57	60.28	17	13.955	71	40.36	154	27.532	230	83.12	296
März 1	60.07	49	32.66	232	39.154	94	60.11	2	13.884	124	41.90	145	27.302	291	86.08	258
11	59.58	60	34.98	193	39.060	124	60.09	$\overline{10}$	13.760	166	43.35	130	27.011	339	88.66	214
21	58.98	69	36.91	147	38.936	143	60.19	21	13.594	196	44.65	110	26.672	375	90.80	167
31	58.29	74	38.38	96	38.793	153	60.40	30	13.398	211	45.75	85	26.297	396	92.47	117
April 10	57.55	77	39.34	42	38.640	153	60.70	36	13.187	216	46.60	58	25.901	406	93.64	65
20	56.78	74	39.76	$\overline{13}$	38.487	145	61.06	42	12.971	208	47.18	30	25.495	403	94.29	12
30	56.04	70	39.63	65	38.342	130	61.48	46	12.763	188	47.48	0	25.092	387	94.41	$\overline{39}$
Mai 10	55.34	63	38.98	115	38.212	108	61.94	50	12.575	161	47.48	29	24.705	363	94.02	91
20	54.71	52	37.83	160	38.104	81	62.44	53	12.414	126	47.19	54	24.342	329	93.11	139
30	54.19	41	36.23	200	38.023	53	62.97	55	12.288	87	46.65	79	24.013	286	91.72	184
Juni 9	53.78	29	34.23	233	37.970	21	63.52	56	12.201	44	45.86	100	23.727	237	89.88	224
19	53.49	15	31.90	260	37.949	$\overline{12}$	64.08	56	12.157	$\overline{1}$	44.86	117	23.490	182	87.64	258
29	53.34	1	29.30	279	37.961	44	64.64	56	12.158	45	43.69	132	23.308	122	85.06	286
Juli 9	53.33	$\overline{14}$	26.51	292	38.005	75	65.20	51	12.203	90	42.37	145	23.186	58	82.20	305
19	53.47	27	23.59	298	38.080	105	65.71	46	12.293	132	40.92	153	23.128	$\overline{8}$	79.15	315
29	53.74	41	20.61	297	38.185	134	66.17	38	12.425	173	39.39	160	23.136	75	76.00	315
Aug. 8	54.15	54	17.64	291	38.319	163	66.55	26	12.598	212	37.79	163	23.211	143	72.85	305
18	54.69	65	14.73	278	38.482	189	66.81	12	12.810	249	36.16	165	23.354	209	69.80	285
28	55.34	77	11.95	259	38.671	214	66.93	$\overline{5}$	13.059	283	34.51	165	23.563	273	66.95	254
Sept. 7	56.11	86	9.36	236	38.885	238	66.88	24	13.342	314	32.86	161	23.836	332	64.41	213
17	56.97	95	7.00	207	39.123	260	66.64	45	13.656	345	31.25	156	24.168	385	62.28	164
27	57.92	103	4.93	173	39.383	280	66.19	66	14.001	371	29.69	147	24.553	429	60.64	107
Okt. 7	58.95	108	3.20	135	39.663	298	65.53	88	14.372	394	28.22	136	24.982	463	59.57	44
17	60.03	111	1.85	93	39.961	312	64.65	107	14.766	412	26.86	120	25.445	485	59.13	$\overline{21}$
27	61.14	113	0.92	47	40.273	321	63.58	124	15.178	424	25.66	101	25.930	493	59.34	87
Nov. 6	62.27	113	0.45	$\overline{1}$	40.594	324	62.34	137	15.602	428	24.65	79	26.423	485	60.21	151
16	63.40	109	0.46	50	40.918	320	60.97	145	16.030	424	23.86	53	26.908	463	61.72	211
26	64.49	103	0.96	99	41.238	307	59.52	147	16.454	408	23.33	24	27.371	425	63.83	264
Dez. 6	65.52	95	1.95	147	41.545	286	58.05	145	16.862	381	23.09	$\overline{7}$	27.796	372	66.47	308
16	66.47	82	3.42	191	41.831	256	56.60	136	17.243	342	23.16	39	28.168	306	69.55	342
26	67.29	68	5.33	229	42.087	217	55.24	124	17.585	294	23.55	68	28.474	231	72.97	365
36	67.97		7.62		42.304		54.00		17.879		24.23		28.705		76.62	
Mittl. Ort	56.23		18.95		38.512		61.05		12.833		35.35		25.664		78.00	
sec δ, tg δ	4.111		+3.988		1.013		+0.165		1.375		+0.944		1.961		−1.687	
a, a'	+7.5		−11.0		+3.3		−11.0		+4.1		−11.4		+1.2		−11.6	
b, b'	−0.15		− 0.84		−0.01		− 0.83		−0.04		− 0.82		+0.07		− 0.82	

Tag		318) ϑ Chamael. AR.		318) ϑ Chamael. Dekl.		316) Br 1197 Hydra AR.		316) Br 1197 Hydra Dekl.		317) ο Ursae maj. AR.		317) ο Ursae maj. Dekl.		320) Grb 1450 Lynx AR.		320) Grb 1450 Lynx Dekl.	
1947		$8^h\ 22^m$		$-77°\ 18'$		$8^h\ 23^m$		$-3°\ 43'$		$8^h\ 25^m$		$+60°\ 53'$		$8^h\ 29^m$		$+38°\ 11'$	
		s		"		s		"		s		"		s		"	
Jan.	1	21.91	24	36.64	367	1.002	184	51.17	188	53.77	35	47.57	177	28.979	252	57.88	52
	11	22.15	5	40.31	377	1.186	138	53.05	174	54.12	27	49.34	205	29.231	194	58.40	78
	21	27 22.20	$\overline{14}$	44.08	375	27 1.324	88	54.79	156	28 54.39	17	51.39	224	28 29.425	132	59.18	101
	30	22.06	32	47.83	364	1.412	38	56.35	134	54.56	7	53.63	235	29.557	68	60.19	118
Febr.	9	21.74	49	51.47	343	1.450	$\overline{11}$	57.69	112	54.63	$\overline{3}$	55.98	236	29.625	6	61.37	128
	19	21.25	64	54.90	314	1.439	55	58.81	87	54.60	12	58.34	226	29.631	$\overline{52}$	62.65	132
März	1	20.61	78	58.04	279	1.384	92	59.68	64	54.48	19	60.60	208	29.579	103	63.97	129
	11	19.83	88	60.83	238	1.292	122	60.32	41	54.29	26	62.68	180	29.476	143	65.26	120
	21	18.95	96	63.21	193	1.170	141	60.73	19	54.03	31	64.48	147	29.333	172	66.46	106
	31	17.99	102	65.14	143	1.029	153	60.92	$\overline{1}$	53.72	34	65.95	107	29.161	189	67.52	86
April	10	16.97	105	66.57	92	0.876	154	60.91	21	53.38	34	67.02	64	28.972	195	68.38	64
	20	15.92	105	67.49	38	0.722	148	60.70	39	53.04	34	67.66	20	28.777	188	69.02	41
	30	14.87	103	67.87	$\overline{15}$	0.574	135	60.31	56	52.70	32	67.86	$\overline{23}$	28.589	173	69.43	15
Mai	10	13.84	99	67.72	68	0.439	115	59.75	71	52.38	28	67.63	66	28.416	149	69.58	$\overline{9}$
	20	12.85	92	67.04	118	0.324	91	59.04	86	52.10	24	66.97	105	28.267	118	69.49	32
	30	11.93	83	65.86	167	0.233	64	58.18	98	51.86	18	65.92	140	28.149	84	69.17	53
Juni	9	11.10	72	64.19	211	0.169	35	57.20	108	51.68	11	64.52	171	28.065	45	68.64	74
	19	10.38	60	62.08	248	0.134	5	56.12	116	51.57	5	62.81	197	28.020	6	67.90	90
	29	9.78	46	59.60	280	0.129	$\overline{26}$	54.96	120	51.52	$\overline{2}$	60.84	218	28.014	$\overline{35}$	67.00	104
Juli	9	9.32	30	56.80	303	0.155	56	53.76	121	51.54	8	58.66	232	28.049	74	65.96	117
	19	9.02	14	53.77	318	0.211	87	52.55	117	51.62	15	56.34	243	28.123	114	64.79	128
	29	8.88	$\overline{3}$	50.59	323	0.298	116	51.38	109	51.77	22	53.91	247	28.237	150	63.51	135
Aug.	8	8.91	20	47.36	316	0.414	144	50.29	97	51.99	28	51.44	248	28.387	187	62.16	143
	18	9.11	36	44.20	300	0.558	171	49.32	78	52.27	33	48.96	244	28.574	220	60.73	147
	28	9.47	52	41.20	272	0.729	197	48.54	56	52.60	39	46.52	234	28.794	253	59.26	150
Sept.	7	9.99	67	38.48	235	0.926	223	47.98	30	52.99	44	44.18	221	29.047	284	57.76	152
	17	10.66	79	36.13	187	1.149	246	47.68	0	53.43	48	41.97	203	29.331	313	56.24	151
	27	11.45	90	34.26	133	1.395	269	47.68	33	53.91	53	39.94	181	29.644	339	54.73	148
Okt.	7	12.35	97	32.93	71	1.664	287	48.01	66	54.44	55	38.13	155	29.983	362	53.25	141
	17	13.32	101	32.22	6	1.951	303	48.67	98	54.99	59	36.58	124	30.345	382	51.84	132
	27	14.33	102	32.16	$\overline{61}$	2.254	312	49.65	129	55.58	60	35.34	90	30.727	395	50.52	118
Nov.	6	15.35	99	32.77	127	2.566	317	50.94	155	56.18	60	34.44	51	31.122	401	49.34	101
	16	16.34	93	34.04	188	2.883	313	52.49	177	56.78	60	33.93	10	31.523	400	48.33	79
	26	17.27	82	35.92	244	3.196	301	54.26	192	57.38	57	33.83	$\overline{32}$	31.923	387	47.54	55
Dez.	6	18.09	69	38.36	292	3.497	281	56.18	200	57.95	54	34.15	75	32.310	365	46.99	26
	16	18.78	53	41.28	331	3.778	251	58.18	202	58.49	48	34.90	116	32.675	331	46.73	$\overline{3}$
	26	19.31	36	44.59	357	4.029	214	60.20	197	58.97	41	36.06	153	33.006	287	46.76	32
	36	19.67		48.16		4.243		62.17		59.38		37.59		33.293		47.08	
Mittl. Ort		16.28		51.04		0.726		56.19		52.65		50.63		28.588		59.06	
sec δ, tg δ		4.554		—4.442		1.002		—0.065		2.056		+1.796		1.272		+0.787	
a, *a'*		—1.8		—11.7		+3.0		—11.7		+5.0		—11.9		+3.9		—12.2	
b, *b'*		+0.17		— 0.81		0.00		— 0.81		—0.07		— 0.80		—0.03		— 0.79	

Scheinbare Sternörter 1947

Tag	321) η Cancri				1227) o Velorum				327) α Pyxidis				326) δ Cancri			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$8^h\ 29^m$		$+20°\ 37'$		$8^h\ 38^m$		$-52°\ 43'$		$8^h\ 41^m$		$-32°\ 59'$		$8^h\ 41^m$		$+18°\ 20'$	
	s		"		s		"		s		"		s		"	
Jan. 1	38.983	217	22.51	51	47.724	201	45.11	362	28.219	192	28.90	317	40.713	224	62.91	72
11	39.200	167	22.00	30	47.925	128	48.73	369	28.411	140	32.07	317	40.937	177	62.19	48
21	39.367	114	21.70	8	48.053	54	52.42	364	28.551	83	35.24	306	41.114	125	61.71	26
30*)	[29] 39.481	60	21.62	13	[31] 48.107	20	56.06	349	[1] 28.634	26	38.30	288	41.239	71	61.45	5
Febr. 9	39.541	7	21.75	29	48.087	89	59.55	327	28.660	29	41.18	263	[1] 41.310	18	61.40	14
19	39.548	42	22.04	42	47.998	153	62.82	297	28.631	78	43.81	234	41.328	31	61.54	29
März 1	39.506	84	22.46	51	47.845	208	65.79	261	28.553	120	46.15	200	41.297	73	61.83	41
11	39.422	118	22.97	56	47.637	252	68.40	219	28.433	155	48.15	162	41.224	106	62.24	49
21	39.304	140	23.53	57	47.385	286	70.59	175	28.278	180	49.77	124	41.118	132	62.73	53
31	39.164	154	24.10	55	47.099	308	72.34	127	28.098	197	51.01	83	40.986	147	63.26	54
April 10	39.010	158	24.65	51	46.791	319	73.61	77	27.901	203	51.84	41	40.839	153	63.80	52
20	38.852	152	25.16	45	46.472	319	74.38	26	27.698	201	52.25	0	40.686	149	64.32	48
30	38.700	138	25.61	37	46.153	309	74.64	23	27.497	191	52.25	40	40.537	137	64.80	43
Mai 10	38.562	118	25.98	30	45.844	290	74.41	72	27.306	176	51.85	79	40.400	119	65.23	36
20	38.444	93	26.28	22	45.554	265	73.69	121	27.130	154	51.06	117	40.281	96	65.59	30
30	38.351	63	26.50	13	45.289	232	72.48	165	26.976	127	49.89	150	40.185	69	65.89	23
Juni 9	38.288	31	26.63	6	45.057	193	70.83	204	26.849	99	48.39	181	40.116	39	66.12	16
19	38.257	1	26.69	1	44.864	149	68.79	239	26.750	66	46.58	206	40.077	8	66.28	9
29	38.258	34	26.68	9	44.715	102	66.40	267	26.684	32	44.52	226	40.069	22	66.37	2
Juli 9	38.292	67	26.59	17	44.613	51	63.73	287	26.652	3	42.26	239	40.091	54	66.39	6
19	38.359	99	26.42	25	44.562	1	60.86	299	26.655	39	39.87	245	40.145	86	66.33	15
29	38.458	129	26.17	34	44.563	57	57.87	302	26.694	76	37.42	244	40.231	115	66.18	24
Aug. 8	38.587	159	25.83	44	44.620	113	54.85	294	26.770	113	34.98	233	40.346	144	65.94	36
18	38.746	187	25.39	55	44.733	167	51.91	276	26.883	150	32.65	214	40.490	172	65.58	48
28	38.933	214	24.84	67	44.900	221	49.15	248	27.033	186	30.51	187	40.662	201	65.10	62
Sept. 7	39.147	241	24.17	79	45.121	273	46.67	211	27.219	220	28.64	151	40.863	227	64.48	76
17	39.388	265	23.38	92	45.394	320	44.56	164	27.439	254	27.13	109	41.090	253	63.72	91
27	39.653	289	22.46	104	45.714	361	42.92	110	27.693	284	26.04	60	41.343	278	62.81	105
Okt. 7	39.942	309	21.42	115	46.075	395	41.82	50	27.977	309	25.44	7	41.621	300	61.76	119
17	40.251	326	20.27	124	46.470	419	41.32	13	28.286	329	25.37	47	41.921	318	60.57	129
27	40.577	338	19.03	128	46.889	433	41.45	77	28.615	343	25.84	102	42.239	333	59.28	137
Nov. 6	40.915	345	17.75	129	47.322	434	42.22	140	28.958	347	26.86	154	42.572	341	57.91	141
16	41.260	343	16.46	126	47.756	421	43.62	199	29.305	343	28.40	203	42.913	342	56.50	139
26	41.603	333	15.20	117	48.177	396	45.61	252	29.648	328	30.43	244	43.255	334	55.11	133
Dez. 6	41.936	314	14.03	104	48.573	357	48.13	297	29.976	304	32.87	277	43.589	316	53.78	122
16	42.250	285	12.99	88	48.930	306	51.10	331	30.280	269	35.64	301	43.905	290	52.56	106
26	42.535	247	12.11	67	49.236	245	54.41	354	30.549	226	38.65	316	44.195	254	51.50	87
36	42.782		11.44		49.481		57.95		30.775		41.81		44.449		50.63	
Mittl. Ort	38.745		21.32		46.477		58.60		27.660		39.59		40.513		61.50	
sec δ, tg δ	1.068		+0.376		1.651		−1.314		1.192		−0.649		1.054		+0.332	
a, a'	+3.5		−12.2		+1.7		−12.8		+2.4		−13.0		+3.4		−13.0	
b, b'	−0.02		− 0.79		+0.06		− 0.77		+0.03		− 0.76		−0.01		− 0.76	

*) Bei Stern 1227), 327) und 326) lies Jan. 31.

Tag	328) ι Cancri				334) ζ Hydrae				336) 108 G. Carinae				335) ι Ursae maj.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$8^h\ 43^m$		+28° 57′		$8^h\ 52^m$		+6° 8′		$8^h\ 53^m$		−60° 26′		$8^h\ 55^m$		+48° 14′	
Jan. 1	29.879	244	18.39	10	35.730	219	57.91	144	52.51	24	13.94	365	35.822	316	60.84	89
11	30.123	193	18.29	17	35.949	174	56.47	125	52.75	16	17.59	378	36.138	253	61.73	122
21	30.316	137	18.46	40	36.123	125	55.22	105	52.91	7	21.37	378	36.391	183	62.95	149
31	30.453	79	18.86	61	36.248	74	54.17	83	52.98	2	25.15	370	36.574	109	64.44	170
Febr. 9	[1] 30.532	22	19.47	77	[3] 36.322	24	53.34	61	[4] 52.96	11	28.85	352	[4] 36.683	35	66.14	182
19	30.554	30	20.24	88	36.346	23	52.73	39	52.85	17	32.37	325	36.718	34	67.96	186
März 1	30.524	77	21.12	93	36.323	63	52.34	20	52.68	25	35.62	292	36.684	97	69.82	181
11	30.447	115	22.05	93	36.260	97	52.14	3	52.43	31	38.54	253	36.587	149	71.63	168
21	30.332	143	22.98	88	36.163	121	52.11	11	52.12	34	41.07	209	36.438	189	73.31	148
31	30.189	160	23.86	79	36.042	137	52.22	24	51.78	38	43.16	162	36.249	217	74.79	123
April 10	30.029	166	24.65	67	35.905	143	52.46	34	51.40	40	44.78	111	36.032	230	76.02	92
20	29.863	164	25.32	51	35.762	142	52.80	43	51.00	41	45.89	60	35.802	231	76.94	59
30	29.699	152	25.83	35	35.620	132	53.23	49	50.59	40	46.49	8	35.571	220	77.53	24
Mai 10	29.547	132	26.18	19	35.488	117	53.72	55	50.19	38	46.57	45	35.351	200	77.77	10
20	29.415	108	26.37	3	35.371	98	54.27	60	49.81	36	46.12	96	35.151	170	77.67	44
30	29.307	78	26.40	13	35.273	73	54.87	62	49.45	32	45.16	144	34.981	134	77.23	75
Juni 9	29.229	46	26.27	28	35.200	47	55.49	65	49.13	29	43.72	187	34.847	95	76.48	104
19	29.183	13	25.99	42	35.153	20	56.14	65	48.84	23	41.85	227	34.752	51	75.44	129
29	29.170	22	25.57	54	35.133	9	56.79	64	48.61	18	39.58	260	34.701	6	74.15	152
Juli 9	29.192	57	25.03	66	35.142	38	57.43	60	48.43	11	36.98	285	34.695	40	72.63	171
19	29.249	90	24.37	77	35.180	66	58.03	54	48.32	6	34.13	303	34.735	85	70.92	186
29	29.339	122	23.60	87	35.246	95	58.57	45	48.26	2	31.10	310	34.820	129	69.06	198
Aug. 8	29.461	155	22.73	97	35.341	123	59.02	33	48.28	8	28.00	308	34.949	174	67.08	205
18	29.616	186	21.76	107	35.464	151	59.35	18	48.36	16	24.92	294	35.123	215	65.03	211
28	29.802	216	20.69	115	35.615	178	59.53	1	48.52	23	21.98	271	35.338	257	62.92	213
Sept. 7	30.018	244	19.54	124	35.793	205	59.52	22	48.75	29	19.27	237	35.595	295	60.79	211
17	30.262	273	18.30	132	35.998	232	59.30	45	49.04	35	16.90	193	35.890	333	58.68	206
27	30.535	299	16.98	136	36.230	257	58.85	69	49.39	42	14.97	140	36.223	368	56.62	196
Okt. 7	30.834	322	15.62	140	36.487	280	58.16	94	49.81	45	13.57	82	36.591	400	54.66	183
17	31.156	343	14.22	140	36.767	300	57.22	116	50.26	49	12.75	18	36.991	427	52.83	165
27	31.499	357	12.82	137	37.067	315	56.06	138	50.75	51	12.57	49	37.418	447	51.18	142
Nov. 6	31.856	367	11.45	129	37.382	324	54.68	155	51.26	51	13.06	114	37.865	461	49.76	115
16	32.223	368	10.16	116	37.706	327	53.13	166	51.77	50	14.20	176	38.326	464	48.61	84
26	32.591	360	9.00	100	38.033	321	51.47	173	52.27	47	15.96	234	38.790	455	47.77	49
Dez. 6	32.951	342	8.00	78	38.354	306	49.74	173	52.74	43	18.30	284	39.245	435	47.28	12
16	33.293	314	7.22	55	38.660	280	48.01	167	53.17	37	21.14	325	39.680	400	47.16	27
26	33.607	275	6.67	29	38.940	247	46.34	156	53.54	29	24.39	354	40.080	354	47.43	65
36	33.882		6.38		39.187		44.78		53.83		27.93		40.434		48.08	
Mittl. Ort	29.625		18.73		35.574		54.32		50.872		29.52		35.300		64.23	
sec δ, tg δ	1.143		+0.553		1.006		+0.108		2.027		−1.763		1.502		+1.120	
a, *a′*	+3.6		−13.1		+3.2		−13.7		+1.4		−13.8		+4.2		−13.9	
b, *b′*	−0.02		− 0.76		0.00		− 0.73		+0.08		− 0.73		−0.05		− 0.72	

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Tag		337) α Cancri				339) Br 1268 Lynx				338) ρ Ursae maj.				341) κ Ursae maj.			
		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947		$8^h\ 55^m$		$+12°\ 3'$		$8^h\ 57^m$		$+41°\ 59'$		$8^h\ 57^m$		$+67°\ 49'$		$9^h\ 0^m$		$+47°\ 21'$	
		s		"		s		"		s		"		s		"	
Jan.	1	35.548	228	53.28	113	12.769	293	35.69	54	49.26	50	72.04	181	1.451	318	60.02	82
	11	35.776	183	52.15	92	13.062	235	36.23	86	49.76	39	73.85	218	1.769	257	60.84	115
	21	35.959	133	51.23	69	13.297	171	37.09	114	50.15	27	76.03	244	2.026	188	61.99	143
	31	36.092	81	50.54	47	13.468	105	38.23	135	50.42	15	78.47	261	2.214	115	63.42	165
Febr.	9	36.173	30	50.07	25	13.573	38	39.58	149	50.57	3	81.08	268	2.329	42	65.07	178
	19	36.203	17	49.82	6	13.611	25	41.07	157	50.60	9	83.76	263	2.371	26	66.85	183
März	1	36.186	60	49.76	10	13.586	81	42.64	155	50.51	20	86.39	247	2.345	88	68.68	180
	11	36.126	95	49.86	24	13.505	128	44.19	148	50.31	29	88.86	221	2.257	140	70.48	168
	21	36.031	120	50.10	34	13.377	164	45.67	133	50.02	37	91.07	187	2.117	180	72.16	150
	31	35.911	136	50.44	41	13.213	188	47.00	113	49.65	42	92.94	146	1.937	208	73.66	125
April	10	35.775	143	50.85	45	13.025	200	48.13	89	49.23	45	94.40	100	1.729	222	74.91	96
	20	35.632	143	51.30	48	12.825	201	49.02	61	48.78	45	95.40	52	1.507	224	75.87	64
	30	35.489	133	51.78	49	12.624	190	49.63	32	48.33	44	95.92	2	1.283	215	76.51	30
Mai	10	35.356	118	52.27	49	12.434	172	49.95	3	47.89	42	95.94	47	1.068	195	76.81	4
	20	35.238	99	52.76	47	12.262	146	49.98	25	47.47	36	95.47	93	0.873	168	76.77	37
	30	35.139	74	53.23	45	12.116	113	49.73	53	47.11	31	94.54	136	0.705	133	76.40	69
Juni	9	35.065	47	53.68	42	12.003	78	49.20	78	46.80	24	93.18	175	0.572	95	75.71	98
	19	35.018	20	54.10	39	11.925	40	48.42	101	46.56	16	91.43	208	0.477	53	74.73	123
	29	34.998	10	54.49	33	11.885	0	47.41	121	46.40	8	89.35	237	0.424	9	73.50	146
Juli	9	35.008	38	54.82	28	11.885	40	46.20	138	46.32	1	86.98	259	0.415	35	72.04	165
	19	35.046	68	55.10	19	11.925	80	44.82	153	46.33	9	84.39	275	0.450	80	70.39	181
	29	35.114	96	55.29	9	12.005	119	43.29	165	46.42	17	81.64	286	0.530	123	68.58	194
Aug.	8	35.210	125	55.38	2	12.124	158	41.64	175	46.59	26	78.78	291	0.653	165	66.64	203
	18	35.335	153	55.36	17	12.282	195	39.89	182	46.85	33	75.87	289	0.818	208	64.61	209
	28	35.488	181	55.19	33	12.477	232	38.07	186	47.18	41	72.98	283	1.026	247	62.52	211
Sept.	7	35.669	208	54.86	52	12.709	267	36.21	189	47.59	49	70.15	270	1.273	287	60.41	211
	17	35.877	235	54.34	71	12.976	301	34.32	187	48.08	54	67.45	253	1.560	325	58.30	206
	27	36.112	260	53.63	91	13.277	333	32.45	184	48.62	61	64.92	230	1.885	359	56.24	199
Okt.	7	36.372	285	52.72	110	13.610	362	30.61	175	49.23	67	62.62	201	2.244	391	54.25	186
	17	36.657	306	51.62	128	13.972	388	28.86	164	49.90	70	60.61	168	2.635	419	52.39	169
	27	36.963	320	50.34	143	14.360	407	27.22	147	50.60	74	58.93	129	3.054	441	50.70	148
Nov.	6	37.283	331	48.91	152	14.767	419	25.75	126	51.34	75	57.64	86	3.495	455	49.22	121
	16	37.614	335	47.39	159	15.186	424	24.49	101	52.09	75	56.78	39	3.950	458	48.01	91
	26	37.949	329	45.80	159	15.610	417	23.48	71	52.84	74	56.39	10	4.408	452	47.10	57
Dez.	6	38.278	314	44.21	153	16.027	398	22.77	38	53.58	70	56.49	60	4.860	432	46.53	20
	16	38.592	289	42.68	142	16.425	368	22.39	4	54.28	64	57.09	108	5.292	400	46.33	19
	26	38.881	257	41.26	127	16.793	327	22.35	31	54.92	56	58.17	154	5.692	355	46.52	57
	36	39.138		39.99		17.120		22.66		55.48		59.71		6.047		47.09	
Mittl. Ort		35.401		50.84		12.388		38.35		47.69		77.26		0.964		63.50	
sec δ, tg δ		1.023		+0.214		1.346		+0.900		2.651		+2.455		1.476		+1.086	
a, a′		+3.3		−13.9		+3.9		−14.0		+5.4		−14.0		+4.1		−14.2	
a, b′		−0.01		− 0.72		−0.04		− 0.72		−0.11		− 0.71		−0.05		− 0.71	

Tag	343) α Volantis				345) λ Velorum			
	AR.		Dekl.		AR.		Dekl.	
1947	$9^h\ 1^m$		$-66°\ 10'$		$9^h\ 6^m$		$-43°\ 12'$	
	s		″		s		″	
Jan. 1	39.09	28	46.12	364	3.333	228	49.91	341
11	39.37	19	49.76	380	3.561	169	53.32	348
21	39.56	8	53.56	385	3.730	107	56.80	346
31	39.64	$\overline{3}$	57.41	379	3.837	44	60.26	333
Febr. 9	6 39.61	13	61.20	364	7 3.881	$\overline{18}$	63.59	314
19	39.48	22	64.84	341	3.863	74	66.73	287
März 1	39.26	30	68.25	310	3.789	124	69.60	254
11	38.96	37	71.35	273	3.665	165	72.14	218
21	38.59	42	74.08	230	3.500	199	74.32	177
31	38.17	47	76.38	183	3.301	221	76.09	134
April 10	37.70	50	78.21	134	3.080	234	77.43	88
20	37.20	51	79.55	81	2.846	238	78.31	43
30	36.69	50	80.36	28	2.608	234	78.74	$\overline{3}$
Mai 10	36.19	50	80.64	$\overline{25}$	2.374	223	78.71	48
20	35.69	46	80.39	78	2.151	205	78.23	93
30	35.23	43	79.61	128	1.946	182	77.30	133
Juni 9	34.80	38	78.33	175	1.764	153	75.97	171
19	34.42	33	76.58	216	1.611	121	74.26	205
29	34.09	26	74.42	253	1.490	86	72.21	232
Juli 9	33.83	19	71.89	281	1.404	47	69.89	252
19	33.64	10	69.08	302	1.357	7	67.37	266
29	33.54	3	66.06	313	1.350	$\overline{35}$	64.71	271
Aug. 8	33.51	$\overline{7}$	62.93	314	1.385	79	62.00	266
18	33.58	15	59.79	303	1.464	124	59.34	253
28	33.73	24	56.76	283	1.588	169	56.81	229
Sept. 7	33.97	33	53.93	251	1.757	213	54.52	196
17	34.30	41	51.42	210	1.970	255	52.56	155
27	34.71	47	49.32	159	2.225	295	51.01	107
Okt. 7	35.18	53	47.73	100	2.520	328	49.94	52
17	35.71	58	46.73	37	2.848	356	49.42	$\overline{7}$
27	36.29	60	46.36	$\overline{29}$	3.204	376	49.49	67
Nov. 6	36.89	60	46.65	96	3.580	386	50.16	126
16	37.49	60	47.61	160	3.966	384	51.42	182
26	38.09	56	49.21	220	4.350	371	53.24	232
Dez. 6	38.65	50	51.41	273	4.721	346	55.56	276
16	39.15	43	54.14	317	5.067	311	58.32	309
26	39.58	35	57.31	351	5.378	263	61.41	333
36	39.93		60.82		5.641		64.74	
Mittl. Ort	36.96		62.95		2.661		63.77	
sec δ, tg δ	2.477		−2.266		1.372		−0.940	
a, *a′*	+0.9		−14.3		+2.2		−14.5	
b, *b′*	+0.11		−0.70		+0.05		−0.69	

Tag	347) ϑ Hydrae				348) β Carinae			
	AR.		Dekl.		AR.		Dekl.	
1947	$9^h\ 11^m$		$+2°\ 32'$		$9^h\ 12^m$		$-69°\ 29'$	
	s		″		s		″	
Jan. 1	36.552	232	24.57	170	40.16	33	37.05	358
11	36.784	189	22.87	154	40.49	23	40.63	377
21	36.973	141	21.33	133	40.72	10	44.40	386
31	37.114	91	20.00	111	40.82	$\overline{1}$	48.26	384
Febr. 9	8 37.205	41	18.89	87	8 40.81	13	52.10	373
19	37.246	$\overline{6}$	18.02	65	40.68	23	55.83	352
März 1	37.240	47	17.37	42	40.45	33	59.35	324
11	37.193	82	16.95	22	40.12	41	62.59	289
21	37.111	109	16.73	5	39.71	48	65.48	248
31	37.002	127	16.68	$\overline{12}$	39.23	54	67.96	203
April 10	36.875	136	16.80	25	38.69	57	69.99	154
20	36.739	137	17.05	36	38.12	58	71.53	103
30	36.602	131	17.41	47	37.54	60	72.56	49
Mai 10	36.471	120	17.88	56	36.94	58	73.05	$\overline{4}$
20	36.351	102	18.44	63	36.36	56	73.01	58
30	36.249	82	19.07	69	35.80	52	72.43	110
Juni 9	36.167	59	19.76	73	35.28	48	71.33	158
19	36.108	34	20.49	76	34.80	41	69.75	203
29	36.074	7	21.25	76	34.39	34	67.72	241
Juli 9	36.067	$\overline{20}$	22.01	74	34.05	26	65.31	272
19	36.087	47	22.75	68	33.79	16	62.59	297
29	36.134	74	23.43	60	33.63	7	59.62	311
Aug. 8	36.208	103	24.03	49	33.56	$\overline{3}$	56.51	315
18	36.311	131	24.52	32	33.59	13	53.36	310
28	36.442	159	24.84	14	33.72	24	50.26	291
Sept. 7	36.601	187	24.98	$\overline{9}$	33.96	34	47.35	263
17	36.788	216	24.89	35	34.30	43	44.72	225
27	37.004	243	24.54	61	34.73	52	42.47	176
Okt. 7	37.247	269	23.93	88	35.25	59	40.71	119
17	37.516	291	23.05	115	35.84	64	39.52	57
27	37.807	310	21.90	140	36.48	68	38.95	$\overline{9}$
Nov. 6	38.117	323	20.50	161	37.16	68	39.04	76
16	38.440	328	18.89	177	37.84	68	39.80	142
26	38.768	324	17.12	188	38.52	64	41.22	203
Dez. 6	39.092	313	15.24	191	39.16	58	43.25	258
16	39.405	290	13.33	190	39.74	50	45.83	305
26	39.695	258	11.43	181	40.24	41	48.88	342
36	39.953		9.62		40.65		52.30	
Mittl. Ort	36.455		20.12		37.71		55.05	
sec δ, tg δ	1.001		+0.044		2.855		−2.674	
a, *a′*	+3.1		−14.9		+0.7		−14.9	
b, *b′*	0.00		−0.67		+0.13		−0.67	

Scheinbare Sternörter 1947

Tag	350) 83 Cancri AR.		Dekl.		352) α Lyncis AR.		Dekl.		353) ϰ Velorum AR.		Dekl.		354) α Hydrae AR.		Dekl.	
1947	$9^h\ 16^m$		+17° 55′		$9^h\ 17^m$		+34° 36′		$9^h\ 20^m$		−54° 46′		$9^h\ 24^m$		−8° 25′	
	s		″		s		″		s		″		s		″	
Jan. 1	1.604	253	53.09	91	50.111	290	62.08	1	29.266	271	44.40	353	59.030	236	33.56	224
11	1.857	209	52.18	65	50.401	239	62.07	33	29.537	201	47.93	368	59.266	194	35.80	214
21	2.066	159	51.53	40	50.640	183	62.40	62	29.738	126	51.61	372	59.460	147	37.94	199
31	2.225	105	51.13	15	50.823	123	63.02	87	29.864	50	55.33	368	59.607	97	39.93	178
Febr. 9*)	2.330	53	50.98	7	50.946	62	63.89	108	29.914	25	59.01	353	59.704	47	41.71	155
19	2.383	3	51.05	26	51.008	4	64.97	122	29.889	94	62.54	331	59.751	0	43.26	130
März 1	2.386	41	51.31	42	51.012	48	66.19	129	29.795	157	65.85	301	59.751	42	44.56	104
11	2.345	80	51.73	53	50.964	93	67.48	129	29.638	209	68.86	265	59.709	77	45.60	79
21	2.265	109	52.26	59	50.871	128	68.77	123	29.429	252	71.51	225	59.632	105	46.39	53
31	2.156	129	52.85	63	50.743	153	70.00	111	29.177	285	73.76	180	59.527	124	46.92	29
April 10	2.027	141	53.48	62	50.590	168	71.11	95	28.892	306	75.56	134	59.403	135	47.21	6
20	1.886	142	54.10	59	50.422	171	72.06	76	28.586	316	76.90	84	59.268	139	47.27	15
30	1.744	137	54.69	53	50.251	166	72.82	53	28.270	319	77.74	33	59.129	136	47.12	37
Mai 10	1.607	125	55.22	47	50.085	152	73.35	30	27.951	310	78.07	17	58.993	126	46.75	55
20	1.482	107	55.69	38	49.933	133	73.65	6	27.641	294	77.90	66	58.867	112	46.20	72
30	1.375	85	56.07	31	49.800	107	73.71	16	27.347	271	77.24	114	58.755	95	45.48	88
Juni 9	1.290	61	56.38	22	49.693	79	73.55	39	27.076	241	76.10	158	58.660	73	44.60	101
19	1.229	35	56.60	12	49.614	48	73.16	60	26.835	204	74.52	199	58.587	51	43.59	112
29	1.194	6	56.72	3	49.566	14	72.56	79	26.631	163	72.53	233	58.536	26	42.47	119
Juli 9	1.188	22	56.75	8	49.552	19	71.77	97	26.468	116	70.20	261	58.510	0	41.28	123
19	1.210	51	56.67	18	49.571	54	70.80	113	26.352	65	67.59	281	58.510	27	40.05	124
29	1.261	79	56.49	31	49.625	87	69.67	127	26.287	10	64.78	293	58.537	54	38.81	118
Aug. 8	1.340	109	56.18	43	49.712	122	68.40	141	26.277	47	61.85	294	58.591	83	37.63	108
18	1.449	138	55.75	58	49.834	155	66.99	152	26.324	106	58.91	285	58.674	112	36.55	92
28	1.587	167	55.17	73	49.989	190	65.47	162	26.430	167	56.06	267	58.786	141	35.63	73
Sept. 7	1.754	196	54.44	89	50.179	223	63.85	171	26.597	226	53.39	238	58.927	172	34.90	47
17	1.950	226	53.55	105	50.402	255	62.14	176	26.823	283	51.01	198	59.099	203	34.43	17
27	2.176	253	52.50	121	50.657	287	60.38	180	27.106	336	49.03	150	59.302	231	34.26	16
Okt. 7	2.429	281	51.29	136	50.944	318	58.58	180	27.442	382	47.53	95	59.533	260	34.42	52
17	2.710	305	49.93	148	51.262	345	56.78	176	27.824	420	46.58	34	59.793	285	34.94	88
27	3.015	324	48.45	157	51.607	367	55.02	168	28.244	446	46.24	30	60.078	305	35.82	123
Nov. 6	3.339	339	46.88	162	51.974	383	53.34	155	28.690	459	46.54	93	60.383	320	37.05	155
16	3.678	346	45.26	161	52.357	391	51.79	136	29.149	459	47.47	156	60.703	327	38.60	183
26	4.024	344	43.65	156	52.748	389	50.43	114	29.608	444	49.03	214	61.030	325	40.43	205
Dez. 6	4.368	332	42.09	144	53.137	377	49.29	86	30.052	415	51.17	264	61.355	314	42.48	221
16	4.700	312	40.65	128	53.514	354	48.43	56	30.467	370	53.81	307	61.669	293	44.69	229
26	5.012	279	39.37	107	53.868	319	47.87	23	30.837	314	56.88	340	61.962	262	46.98	230
36	5.291		38.30		54.187		47.64		31.151		60.28		62.224		49.28	
Mittl. Ort	1.510		52.00		49.903		64.27		28.259		61.05		58.950		40.72	
sec δ, tg δ	1.051		+0.324		1.215		+0.690		1.734		−1.417		1.011		−0.148	
a, *a′*	+3.4		−15.1		+3.7		−15.2		+1.9		−15.4		+2.9		−15.6	
b, *b′*	−0.02		−0.66		−0.03		−0.65		+0.07		−0.64		+0.01		−0.63	

*) Bei Stern 352), 353) und 354) lies Febr. 10.

Tag	356) ε Antliae				355) 23 Ursae maj.				358) ϑ Ursae maj.				357) 24 Ursae maj.			
	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1947	$9^h\ 27^m$		−35° 42′		$9^h\ 27^m$		+63° 17′		$9^h\ 29^m$		+51° 54′		$9^h\ 29^m$		+70° 3′
	s		″		s		″		s		″		s		″	
Jan. 1	3.679	244	54.18	319	23.38	48	35.85	134	19.947	374	67.02	78	51.51	60	46.79	159
11	3.923	194	57.37	326	23.86	40	37.19	175	20.321	311	67.80	117	52.11	50	48.38	202
21	4.117	138	60.63	323	24.26	30	38.94	209	20.632	240	68.97	152	52.61	38	50.40	236
31	4.255	80	63.86	312	24.56	20	41.03	235	20.872	164	70.49	179	52.99	25	52.76	261
Febr. 10	4.335	24	66.98	294	24.76	10	43.38	251	21.036	85	72.28	199	53.24	11	55.37	275
	12				12				13				13			
19	4.359	29	69.92	269	24.86	1	45.89	255	21.121	8	74.27	207	53.35	2	58.12	278
März 1	4.330	77	72.61	239	24.85	10	48.44	248	21.129	63	76.34	208	53.33	15	60.90	269
11	4.253	117	75.00	205	24.75	19	50.92	232	21.066	124	78.42	199	53.18	26	63.59	249
21	4.136	149	77.05	169	24.56	26	53.24	207	20.942	174	80.41	181	52.92	35	66.08	219
31	3.987	173	78.74	129	24.30	31	55.31	173	20.768	212	82.22	156	52.57	42	68.27	182
April 10	3.814	188	80.03	89	23.99	34	57.04	132	20.556	237	83.78	125	52.15	47	70.09	137
20	3.626	194	80.92	48	23.65	36	58.36	89	20.319	247	85.03	91	51.68	50	71.46	88
30	3.432	193	81.40	6	23.29	36	59.25	43	20.072	245	85.94	53	51.18	51	72.34	38
Mai 10	3.239	186	81.46	34	22.93	35	59.68	5	19.827	232	86.47	14	50.67	48	72.72	13
20	3.053	173	81.12	74	22.58	32	59.63	50	19.595	211	86.61	24	50.19	45	72.59	64
30	2.880	155	80.38	111	22.26	27	59.13	95	19.384	180	86.37	62	49.74	40	71.95	111
Juni 9	2.725	132	79.27	145	21.99	23	58.18	136	19.204	144	85.75	97	49.34	33	70.84	155
19	2.593	106	77.82	176	21.76	16	56.82	173	19.060	103	84.78	129	49.01	26	69.29	195
29	2.487	78	76.06	202	21.60	11	55.09	205	18.957	60	83.49	158	48.75	17	67.34	230
Juli 9	2.409	46	74.04	221	21.49	4	53.04	233	18.897	15	81.91	183	48.58	10	65.04	257
19	2.363	13	71.83	234	21.45	2	50.71	255	18.882	32	80.08	205	48.48	0	62.47	281
29	2.350	24	69.49	239	21.47	9	48.16	271	18.914	79	78.03	222	48.48	9	59.66	298
Aug. 8	2.374	61	67.10	236	21.56	16	45.45	283	18.993	126	75.81	235	48.57	18	56.68	309
18	2.435	99	64.74	225	21.72	23	42.62	290	19.119	173	73.46	245	48.75	27	53.59	313
28	2.534	140	62.49	205	21.95	29	39.72	290	19.292	219	71.01	250	49.02	35	50.46	312
Sept. 7	2.674	180	60.44	175	22.24	35	36.82	285	19.511	265	68.51	251	49.37	45	47.34	304
17	2.854	219	58.69	138	22.59	41	33.97	274	19.776	310	66.00	248	49.82	52	44.30	290
27	3.073	257	57.31	94	23.00	48	31.23	259	20.086	352	63.52	240	50.34	60	41.40	271
Okt. 7	3.330	292	56.37	43	23.48	52	28.64	237	20.438	393	61.12	226	50.94	66	38.69	244
17	3.622	321	55.94	10	24.00	57	26.27	209	20.831	429	58.86	208	51.60	73	36.25	213
27	3.943	344	56.04	65	24.57	61	24.18	175	21.260	458	56.78	184	52.33	77	34.12	174
Nov. 6	4.287	359	56.69	120	25.18	63	22.43	137	21.718	481	54.94	154	53.10	81	32.38	130
16	4.646	364	57.89	172	25.81	65	21.06	93	22.199	493	53.40	120	53.91	82	31.08	83
26	5.010	359	59.61	219	26.46	65	20.13	46	22.692	492	52.20	82	54.73	82	30.25	31
Dez. 6	5.369	341	61.80	258	27.11	62	19.67	3	23.184	479	51.38	39	55.55	79	29.94	22
16	5.710	313	64.38	290	27.73	59	19.70	54	23.663	451	50.99	5	56.34	74	30.16	76
26	6.023	276	67.28	313	28.32	53	20.24	103	24.114	409	51.04	50	57.08	66	30.92	127
36	6.299		70.41		28.85		21.27		24.523		51.54		57.74		32.19	
Mittl. Ort	3.320		67.68		22.35		42.33		19.442		72.34		49.87		53.89	
sec δ, tg δ	1.232		−0.719		2.225		+1.988		1.621		+1.276		2.933		+2.757	
a, a'	+2.5		−15.7		+4.7		−15.8		+4.1		−15.9		+5.3		−15.9	
b, b'	+0.04		−0.62		−0.10		−0.62		−0.07		−0.61		−0.15		−0.61	

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Tag	360) 10 Leonis min. AR.		Dekl.		366) ϑ Antliae AR.		Dekl.	
1947	9h 30m		+36° 37′		9h 41m		−27° 31′	
Jan. 1	59.128	308	59.24	1	50.361	253	21.58	294
11	59.436	258	59.25	35	50.614	207	24.52	298
21	59.694	202	59.60	68	50.821	156	27.50	292
31	59.896	141	60.28	95	50.977	104	30.42	280
Febr. 10	60.037	79	61.23	118	51.081	51	33.22	262
	13				16			
19	60.116	20	62.41	133	51.132	1	35.84	237
März 1	60.136	35	63.74	142	51.133	45	38.21	209
11	60.101	82	65.16	142	51.088	84	40.30	178
21	60.019	121	66.58	136	51.004	116	42.08	145
31	59.898	148	67.94	125	50.888	139	43.53	110
April 10	59.750	166	69.19	107	50.749	154	44.63	75
20	59.584	173	70.26	86	50.595	162	45.38	39
30	59.411	170	71.12	62	50.433	163	45.77	3
Mai 10	59.241	159	71.74	36	50.270	158	45.80	31
20	59.082	141	72.10	11	50.112	147	45.49	65
30	58.941	119	72.21	15	49.965	131	44.84	97
Juni 9	58.822	91	72.06	40	49.834	114	43.87	125
19	58.731	61	71.66	64	49.720	91	42.62	151
29	58.670	29	71.02	86	49.629	67	41.11	173
Juli 9	58.641	5	70.16	106	49.562	40	39.38	188
19	58.646	38	69.10	124	49.522	12	37.50	199
29	58.684	74	67.86	140	49.510	20	35.51	203
Aug. 8	58.758	108	66.46	156	49.530	52	33.48	199
18	58.866	143	64.90	168	49.582	86	31.49	189
28	59.009	177	63.22	179	49.668	123	29.60	169
Sept. 7	59.186	213	61.43	187	49.791	159	27.91	142
17	59.399	248	59.56	194	49.950	196	26.49	109
27	59.647	283	57.62	196	50.146	231	25.40	68
Okt. 7	59.930	314	55.66	196	50.377	266	24.72	23
17	60.244	344	53.70	191	50.643	296	24.49	25
27	60.588	370	51.79	181	50.939	320	24.74	75
Nov. 6	60.958	389	49.98	167	51.259	338	25.49	124
16	61.347	399	48.31	146	51.597	347	26.73	171
26	61.746	400	46.85	122	51.944	346	28.44	211
Dez. 6	62.146	391	45.63	92	52.290	335	30.55	246
16	62.537	370	44.71	59	52.625	312	33.01	272
26	62.907	336	44.12	24	52.937	280	35.73	289
36	63.243		43.88		53.217		38.62	
Mittl. Ort	58.941		62.20		50.214		33.82	
sec δ, tg δ	1.246		+0.744		1.128		−0.521	
a, *a′*	+3.7		−16.0		+2.7		−16.5	
b, *b′*	−0.04		− 0.61		+0.03		− 0.57	

Tag	367) ε Leonis AR.		Dekl.		368) υ Ursae maj. AR.		Dekl.	
1947	9h 42m		+24° 0′		9h 47m		+59° 16′	
Jan. 1	50.802	285	68.59	73	14.985	459	74.09	96
11	51.087	242	67.86	43	15.444	388	75.05	140
21	51.329	193	67.43	13	15.832	307	76.45	178
31	51.522	139	67.30	16	16.139	219	78.23	209
Febr. 10	51.661	85	67.46	40	16.358	127	80.32	230
	16				17			
19	51.746	32	67.86	61	16.485	35	82.62	241
März 1	51.778	17	68.47	77	16.520	52	85.03	242
11	51.761	58	69.24	87	16.468	129	87.45	232
21	51.703	93	70.11	92	16.339	194	89.77	213
31	51.610	118	71.03	92	16.145	245	91.90	185
April 10	51.492	134	71.95	86	15.900	281	93.75	150
20	51.358	142	72.81	78	15.619	301	95.25	111
30	51.216	140	73.59	67	15.318	307	96.36	68
Mai 10	51.076	133	74.26	53	15.011	298	97.04	24
20	50.943	120	74.79	38	14.713	279	97.28	22
30	50.823	101	75.17	23	14.434	249	97.06	65
Juni 9	50.722	79	75.40	7	14.185	210	96.41	106
19	50.643	55	75.47	8	13.975	165	95.35	144
29	50.588	29	75.39	24	13.810	116	93.91	179
Juli 9	50.559	2	75.15	39	13.694	63	92.12	208
19	50.557	26	74.76	55	13.631	8	90.04	235
29	50.583	55	74.21	70	13.623	49	87.69	255
Aug. 8	50.638	85	73.51	85	13.672	105	85.14	271
18	50.723	115	72.66	101	13.777	164	82.43	282
28	50.838	146	71.65	117	13.941	221	79.61	287
Sept. 7	50.984	177	70.48	131	14.162	278	76.74	288
17	51.161	210	69.17	145	14.440	335	73.86	283
27	51.371	242	67.72	158	14.775	388	71.03	272
Okt. 7	51.613	273	66.14	168	15.163	439	68.31	256
17	51.886	301	64.46	176	15.602	486	65.75	233
27	52.187	327	62.70	180	16.088	525	63.42	204
Nov. 6	52.514	346	60.90	179	16.613	556	61.38	170
16	52.860	358	59.11	172	17.169	574	59.68	130
26	53.218	362	57.39	161	17.743	579	58.38	85
Dez. 6	53.580	355	55.78	142	18.322	569	57.53	36
16	53.935	338	54.36	120	18.891	541	57.17	13
26	54.273	310	53.16	93	19.432	496	57.30	63
36	54.583		52.23		19.928		57.93	
Mittl. Ort	50.776		69.26		14.282		81.13	
sec δ, tg δ	1.095		+0.446		1.958		+1.683	
a, *a′*	+3.4		−16.6		+4.3		−16.8	
b, *b′*	−0.02		− 0.56		−0.09		− 0.55	

Tag	370) 6 Sextantis AR.	Δ	370) Dekl.	Δ	372) Grb 1586 UMaj AR.	Δ	372) Dekl.	Δ	375) φ Velorum AR.	Δ	375) Dekl.	Δ	378) π Leonis AR.	Δ	378) Dekl.	Δ
1947	$9^h\ 48^m$		$-3°\ 59'$		$9^h\ 53^m$		$+73°\ 7'$		$9^h\ 54^m$		$-54°\ 18'$		$9^h\ 57^m$		$+8°\ 17'$	
	s		"		s		"		s		"		s		"	
Jan. 1	33.709	257	32.56	209	43.27	75	49.87	144	60.550	322	34.53	336	24.734	272	60.60	157
11	33.966	218	34.65	197	44.02	64	51.31	191	60.872	257	37.89	357	25.006	233	59.03	136
21	34.184	172	36.62	179	44.66	49	53.22	231	61.129	187	41.46	369	25.239	189	57.67	112
31	34.356	123	38.41	158	45.15	35	55.53	261	61.316	114	45.15	370	25.428	140	56.55	86
Febr. 10	34.479	74	39.99	135	45.50	20	58.14	282	61.430	41	48.85	362	25.568	90	55.69	61
19*)	[18] 34.553	27	41.34	110	[19] 45.70	4	60.96	289	[19] 61.471	30	52.47	346	[20] 25.658	42	55.08	36
März 1	34.580	16	42.44	85	45.74	11	63.85	284	61.441	94	55.93	322	25.700	3	54.72	14
11	34.564	54	43.29	60	45.63	25	66.69	269	61.347	150	59.15	291	25.697	42	54.58	5
21	34.510	83	43.89	38	45.38	36	69.38	242	61.197	199	62.06	255	25.655	73	54.63	22
31	34.427	105	44.27	17	45.02	46	71.80	206	60.998	236	64.61	216	25.582	98	54.85	34
April 10	34.322	120	44.44	2	44.56	54	73.86	164	60.762	265	66.77	171	25.484	114	55.19	44
20	34.202	127	44.42	20	44.02	58	75.50	115	60.497	284	68.48	124	25.370	122	55.63	50
30	34.075	127	44.22	36	43.44	59	76.65	63	60.213	294	69.72	76	25.248	124	56.13	55
Mai 10	33.948	122	43.86	50	42.85	60	77.28	10	59.919	295	70.48	26	25.124	119	56.68	57
20	33.826	112	43.36	63	42.25	56	77.38	43	59.624	288	70.74	23	25.005	109	57.25	57
30	33.714	96	42.73	74	41.69	52	76.95	94	59.336	274	70.51	72	24.896	96	57.82	56
Juni 9	33.618	79	41.99	83	41.17	46	76.01	142	59.062	253	69.79	118	24.800	78	58.38	54
19	33.539	60	41.16	91	40.71	38	74.59	186	58.809	226	68.61	161	24.722	59	58.92	51
29	33.479	38	40.25	94	40.33	29	72.73	224	58.583	192	67.00	199	24.663	37	59.43	45
Juli 9	33.441	14	39.31	96	40.04	19	70.49	259	58.391	153	65.01	232	24.626	15	59.88	38
19	33.427	10	38.35	94	39.85	10	67.90	286	58.238	108	62.69	258	24.611	10	60.26	29
29	33.437	36	37.41	88	39.75	0	65.04	307	58.130	59	60.11	275	24.621	34	60.55	18
Aug. 8	33.473	63	36.53	78	39.75	11	61.97	323	58.071	5	57.36	284	24.655	62	60.73	5
18	33.536	91	35.75	63	39.86	22	58.74	331	58.066	53	54.52	283	24.717	89	60.78	11
28	33.627	121	35.12	44	40.08	33	55.43	333	58.119	114	51.69	271	24.806	118	60.67	29
Sept. 7	33.748	152	34.68	21	40.41	42	52.10	329	58.233	174	48.98	249	24.924	149	60.38	50
17	33.900	183	34.47	6	40.83	53	48.81	318	58.407	235	46.49	216	25.073	181	59.88	71
27	34.083	215	34.53	36	41.36	62	45.63	300	58.642	294	44.33	174	25.254	212	59.17	95
Okt. 7	34.298	245	34.89	68	41.98	71	42.63	275	58.936	347	42.59	124	25.466	243	58.22	118
17	34.543	273	35.57	100	42.69	79	39.88	244	59.283	394	41.35	67	25.709	273	57.04	140
27	34.816	298	36.57	131	43.48	86	37.44	206	59.677	430	40.68	6	25.982	298	55.64	160
Nov. 6	35.114	316	37.88	158	44.34	90	35.38	162	60.107	454	40.62	57	26.280	319	54.04	175
16	35.430	328	39.46	183	45.24	94	33.76	113	60.561	466	41.19	120	26.599	333	52.29	187
26	35.758	330	41.29	202	46.18	94	32.63	60	61.027	461	42.39	179	26.932	338	50.42	192
Dez. 6	36.088	324	43.31	213	47.12	93	32.03	3	61.488	442	44.18	234	27.270	334	48.50	191
16	36.412	307	45.44	218	48.05	88	32.00	53	61.930	408	46.52	281	27.604	319	46.59	183
26	36.719	281	47.62	216	48.93	80	32.53	108	62.338	360	49.33	319	27.923	295	44.76	170
36	37.000		49.78		49.73		33.61		62.698		52.52		28.218		43.06	
Mittl. Ort	33.750		38.91		41.39		58.40		59.909		53.08		24.821		57.53	
sec δ, tg δ	1.002		−0.070		3.446		+3.298		1.714		−1.392		1.011		+0.146	
a, *a'*	+3.0		−16.8		+5.4		−17.1		+2.1		−17.1		+3.2		−17.2	
b, *b'*	0.00		− 0.54		−0.19		− 0.52		+0.08		− 0.52		−0.01		− 0.51	

*) Bei Stern 378) lies Febr. 20.

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Tag	379) η Leonis				380) α Leonis				381) λ Hydrae				382) 191 G. Velorum			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$10^h\ 4^m$		$+17^\circ\ 1'$		$10^h\ 5^m$		$+12^\circ\ 13'$		$10^h\ 7^m$		$-12^\circ\ 5'$		$10^h\ 12^m$		$-41^\circ\ 51'$	
	s		"		s		"		s		"		s		"	
Jan. 1	26.616	288	19.49	119	32.953	282	39.23	143	60.070	269	20.28	242	30.569	302	14.78	314
11	26.904	250	18.30	93	33.235	244	37.80	118	60.339	230	22.70	237	30.871	253	17.92	331
21	27.154	204	17.37	64	33.479	200	36.62	92	60.569	186	25.07	224	31.124	198	21.23	338
31	27.358	154	16.73	35	33.679	151	35.70	65	60.755	139	27.31	207	31.322	140	24.61	338
Febr. 10	27.512	103	16.38	7	33.830	100	35.05	38	60.894	90	29.38	186	31.462	80	27.99	327
20	22 27.615	52	16.31	17	22 33.930	51	34.67	13	22 60.984	42	31.24	162	24 31.542	23	31.26	309
März 1	27.667	6	16.48	37	33.981	6	34.54	9	61.026	3	32.86	136	31.565	31	34.35	286
11	27.673	36	16.85	53	33.987	35	34.63	27	61.023	40	34.22	109	31.534	77	37.21	258
21	27.637	70	17.38	65	33.952	68	34.90	42	60.983	72	35.31	84	31.457	118	39.79	224
31	27.567	96	18.03	71	33.884	93	35.32	52	60.911	97	36.15	57	31.339	150	42.03	187
April 10	27.471	114	18.74	74	33.791	111	35.84	58	60.814	114	36.72	32	31.189	173	43.90	147
20	27.357	125	19.48	73	33.680	121	36.42	61	60.700	123	37.04	8	31.016	190	45.37	107
30	27.232	127	20.21	68	33.559	124	37.03	62	60.577	128	37.12	15	30.826	199	46.44	64
Mai 10	27.105	123	20.89	62	33.435	120	37.65	60	60.449	125	36.97	36	30.627	202	47.08	20
20	26.982	114	21.51	54	33.315	111	38.25	57	60.324	119	36.61	56	30.425	197	47.28	22
30	26.868	101	22.05	43	33.204	99	38.82	51	60.205	108	36.05	74	30.228	188	47.06	65
Juni 9	26.767	84	22.48	33	33.105	82	39.33	45	60.097	94	35.31	90	30.040	175	46.41	104
19	26.683	64	22.81	22	33.023	64	39.78	38	60.003	76	34.41	104	29.865	155	45.37	141
29	26.619	42	23.03	9	32.959	43	40.16	29	59.927	58	33.37	115	29.710	132	43.96	174
Juli 9	26.577	19	23.12	4	32.916	21	40.45	19	59.869	36	32.22	122	29.578	105	42.22	202
19	26.558	5	23.08	17	32.895	4	40.64	8	59.833	14	31.00	125	29.473	73	40.20	223
29	26.563	32	22.91	32	32.899	28	40.72	5	59.819	12	29.75	124	29.400	39	37.97	238
Aug. 8	26.595	58	22.59	48	32.927	55	40.67	20	59.831	39	28.51	117	29.361	0	35.59	244
18	26.653	87	22.11	64	32.982	83	40.47	36	59.870	68	27.34	105	29.361	42	33.15	242
28	26.740	117	21.47	82	33.065	112	40.11	54	59.938	98	26.29	87	29.403	87	30.73	231
Sept. 7	26.857	148	20.65	101	33.177	143	39.57	73	60.036	132	25.42	64	29.490	134	28.42	209
17	27.005	181	19.64	119	33.320	175	38.84	95	60.168	165	24.78	36	29.624	182	26.33	179
27	27.186	214	18.45	137	33.495	208	37.89	115	60.333	200	24.42	3	29.806	229	24.54	141
Okt. 7	27.400	246	17.08	155	33.703	240	36.74	136	60.533	233	24.39	32	30.035	274	23.13	95
17	27.646	277	15.53	169	33.943	270	35.38	155	60.766	265	24.71	70	30.309	315	22.18	42
27	27.923	304	13.84	180	34.213	298	33.83	171	61.031	292	25.41	108	30.624	349	21.76	13
Nov. 6	28.227	327	12.04	188	34.511	320	32.12	182	61.323	314	26.49	143	30.973	375	21.89	70
16	28.554	342	10.16	189	34.831	335	30.30	190	61.637	329	27.92	176	31.348	391	22.59	126
26	28.896	350	8.27	185	35.166	343	28.40	191	61.966	334	29.68	203	31.739	394	23.85	180
Dez. 6	29.246	347	6.42	175	35.509	340	26.49	186	62.300	331	31.71	224	32.133	386	25.65	228
16	29.593	333	4.67	159	35.849	327	24.63	175	62.631	316	33.95	238	32.519	364	27.93	268
26	29.926	311	3.08	137	36.176	303	22.88	157	62.947	291	36.33	245	32.883	331	30.61	301
36	30.237		1.71		36.479		21.31		63.238		38.78		33.214		33.62	
Mittl. Ort	26.711		18.80		33.069		37.27		60.180		29.08		30.427		31.53	
sec δ, tg δ	1.046		+0.306		1.023		+0.217		1.023		−0.214		1.343		−0.896	
a, *a'*	+3.3		−17.5		+3.2		−17.6		+2.9		−17.7		+2.5		−17.9	
b, *b'*	−0.02		− 0.48		−0.01		− 0.48		+0.01		− 0.47		+0.05		− 0.45	

Tag	384) ζ Leonis AR.		384) ζ Leonis Dekl.		383) λ Ursae maj. AR.		383) λ Ursae maj. Dekl.		386) μ Ursae maj. AR.		386) μ Ursae maj. Dekl.		387) 30 H. Ursae maj. AR.		387) 30 H. Ursae maj. Dekl.	
1947	$10^h\ 13^m$		$+23°\ 40'$		$10^h\ 13^m$		$+43°\ 10'$		$10^h\ 19^m$		$+41°\ 45'$		$10^h\ 20^m$		$+65°\ 49'$	
Jan. 1	$44^s.636$	306	$54''.57$	94	$54^s.599$	368	$41''.77$	4	$10^s.802$	365	$55''.04$	15	$20^s.89$	59	$57''.85$	85
11	44.942	268	53.63	62	54.967	322	41.73	39	11.167	322	54.89	28	21.48	52	58.70	136
21	45.210	222	53.01	29	55.289	267	42.12	80	11.489	268	55.17	68	22.00	43	60.06	182
31	45.432	171	52.72	2	55.556	205	42.92	115	11.757	207	55.85	105	22.43	33	61.88	219
Febr. 10	45.603	117	52.74	31	55.761	139	44.07	145	11.964	144	56.90	136	22.76	22	64.07	248
20	[24] 45.720	65	53.05	56	[24] 55.900	74	45.52	166	[25] 12.108	80	58.26	159	[26] 22.98	11	66.55	266
März 1	45.785	16	53.61	76	55.974	11	47.18	180	12.188	19	59.85	174	23.09	1	69.21	271
11	45.801	29	54.37	90	55.985	45	48.98	185	12.207	36	61.59	179	23.08	10	71.92	265
21	45.772	66	55.27	98	55.940	92	50.83	180	12.171	84	63.38	178	22.98	19	74.57	249
31	45.706	94	56.25	101	55.848	132	52.63	169	12.087	122	65.16	168	22.79	27	77.06	222
April 10	45.612	115	57.26	99	55.716	160	54.32	150	11.965	150	66.84	151	22.52	32	79.28	189
20	45.497	128	58.25	91	55.556	177	55.82	126	11.815	169	68.35	128	22.20	37	81.17	147
30	45.369	132	59.16	80	55.379	185	57.08	97	11.646	177	69.63	101	21.83	39	82.64	101
Mai 10	45.237	131	59.96	68	55.194	183	58.05	65	11.469	177	70.64	71	21.44	39	83.65	53
20	45.106	122	60.64	52	55.011	174	58.70	33	11.292	169	71.35	39	21.05	38	84.18	3
30	44.984	110	61.16	36	54.837	159	59.03	1	11.123	154	71.74	6	20.67	36	84.21	46
Juni 9	44.874	93	61.52	19	54.678	137	59.02	35	10.969	135	71.80	27	20.31	33	83.75	94
19	44.781	73	61.71	1	54.541	111	58.67	67	10.834	110	71.53	58	19.98	28	82.81	138
29	44.708	52	61.72	17	54.430	83	58.00	98	10.724	84	70.95	89	19.70	23	81.43	180
Juli 9	44.656	29	61.55	34	54.347	51	57.02	125	10.640	54	70.06	117	19.47	16	79.63	217
19	44.627	3	61.21	53	54.296	17	55.77	152	10.586	21	68.89	144	19.31	11	77.46	249
29	44.624	23	60.68	70	54.279	17	54.25	176	10.565	12	67.45	167	19.20	4	74.97	276
Aug. 8	44.647	51	59.98	88	54.296	55	52.49	195	10.577	47	65.78	188	19.16	4	72.21	297
18	44.698	81	59.10	105	54.351	92	50.54	214	10.624	84	63.90	207	19.20	10	69.24	313
28	44.779	112	58.05	123	54.443	132	48.40	228	10.708	122	61.83	222	19.30	18	66.11	323
Sept. 7	44.891	144	56.82	140	54.575	172	46.12	239	10.830	162	59.61	235	19.48	25	62.88	326
17	45.035	179	55.42	157	54.747	214	43.73	246	10.992	204	57.26	243	19.73	33	59.62	324
27	45.214	213	53.85	171	54.961	255	41.27	250	11.196	245	54.83	247	20.06	40	56.38	314
Okt. 7	45.427	247	52.14	184	55.216	297	38.77	247	11.441	285	52.36	248	20.46	47	53.24	298
17	45.674	281	50.30	193	55.513	336	36.30	241	11.726	325	49.88	243	20.93	53	50.26	275
27	45.955	310	48.37	199	55.849	371	33.89	228	12.051	361	47.45	231	21.46	59	47.51	245
Nov. 6	46.265	335	46.38	200	56.220	401	31.61	210	12.412	390	45.14	215	22.05	64	45.06	208
16	46.600	353	44.38	194	56.621	421	29.51	184	12.802	413	42.99	191	22.69	67	42.98	165
26	46.953	362	42.44	183	57.042	433	27.67	154	13.215	425	41.08	161	23.36	69	41.33	116
Dez. 6	47.315	362	40.61	166	57.475	433	26.13	117	13.640	426	39.47	126	24.05	70	40.17	63
16	47.677	350	38.95	142	57.908	419	24.96	76	14.066	413	38.21	87	24.75	67	39.54	8
26	48.027	328	37.53	116	58.327	393	24.20	34	14.479	390	37.34	45	25.42	63	39.46	48
36	48.355		36.37		58.720		23.86		14.869		36.89		26.05		39.94	
Mittl. Ort	44.739		55.75		54.495		47.39		10.745		60.55		20.02		67.09	
sec δ, tg δ	1.092		+0.439		1.371		+0.938		1.341		+0.893		2.443		+2.229	
a, a'	+3.3		−17.9		+3.6		−17.9		+3.6		−18.1		+4.3		−18.2	
b, b'	−0.03		− 0.45		−0.06		− 0.45		−0.05		− 0.43		−0.13		− 0.42	

Scheinbare Sternörter 1947

Tag	391) I Carinae AR.		Dekl.		389) μ Hydrae AR.		Dekl.	
1947	10ʰ 23ᵐ		−73° 45′		10ʰ 23ᵐ		−16° 33′	
	s		″		s		″	
Jan. 1	22.71	61	18.86	308	31.334	281	44.13	256
11	23.32	50	21.94	344	31.615	244	46.69	254
21	23.82	37	25.38	370	31.859	201	49.23	247
31	24.19	23	29.08	386	32.060	153	51.70	232
Febr. 10	24.42	9	32.94	392	32.213	104	54.02	213
20	24.51	4	36.86	388	32.317	56	56.15	190
März 1	[26] 24.47	17	40.74	375	[26] 32.373	12	58.05	165
11	24.30	29	44.49	355	32.385	28	59.70	138
21	24.01	39	48.04	327	32.357	61	61.08	111
31	23.62	48	51.31	293	32.296	88	62.19	83
April 10	23.14	56	54.24	251	32.208	107	63.02	55
20	22.58	63	56.75	207	32.101	120	63.57	29
30	21.95	66	58.82	158	31.981	126	63.86	3
Mai 10	21.29	70	60.40	107	31.855	126	63.89	23
20	20.59	70	61.47	52	31.729	123	63.66	45
30	19.89	70	61.99	3	31.606	115	63.21	68
Jun 9	19.19	68	61.96	56	31.491	104	62.53	88
19	18.51	63	61.40	108	31.387	88	61.65	106
29	17.88	59	60.32	158	31.299	72	60.59	120
Juli 9	17.29	51	58.74	202	31.227	53	59.39	131
19	16.78	42	56.72	240	31.174	30	58.08	137
29	16.36	32	54.32	271	31.144	6	56.71	139
Aug. 8	16.04	20	51.61	293	31.138	21	55.32	136
18	15.84	8	48.68	306	31.159	50	53.96	126
28	15.76	6	45.62	306	31.209	82	52.70	110
Sept. 7	15.82	19	42.56	296	31.291	116	51.60	88
17	16.01	33	39.60	275	31.407	152	50.72	60
27	16.34	47	36.85	242	31.559	188	50.12	27
Okt. 7	16.81	58	34.43	198	31.747	224	49.85	9
17	17.39	68	32.45	147	31.971	259	49.94	49
27	18.07	77	30.98	87	32.230	289	50.43	89
Nov. 6	18.84	83	30.11	23	32.519	313	51.32	128
16	19.67	86	29.88	43	32.832	331	52.60	166
26	20.53	86	30.31	110	33.163	340	54.26	198
Dez. 6	21.39	82	31.41	173	33.503	337	56.24	224
16	22.21	77	33.14	231	33.840	326	58.48	243
26	22.98	68	35.45	282	34.166	302	60.91	255
36	23.66		38.27		34.468		63.46	
Mittl. Ort	20.97		41.64		31.512		54.44	
sec δ, tg δ	3.576		−3.433		1.043		−0.297	
a, *a′*	+1.2		−18.3		+2.9		−18.3	
b, *b′*	+0.21		− 0.41		+0.02		− 0.41	

Tag	392) α Antliae AR.		Dekl.		390) β Leonis min. AR.		Dekl.	
1947	10ʰ 24ᵐ		−30° 47′		10ʰ 24ᵐ		+36° 58′	
	s		″		s		″	
Jan. 1	43.317	293	35.61	290	49.436	350	41.40	43
11	43.610	252	38.51	301	49.786	309	40.97	1
21	43.862	205	41.52	303	50.095	259	40.96	39
31	44.067	154	44.55	296	50.354	203	41.35	75
Febr. 10	44.221	101	47.51	284	50.557	144	42.10	107
20	44.322	49	50.35	264	50.701	84	43.17	131
März 1	[27] 44.371	2	52.99	241	[27] 50.785	27	44.48	150
11	44.373	42	55.40	212	50.812	25	45.98	159
21	44.331	78	57.52	182	50.787	69	47.57	160
31	44.253	106	59.34	149	50.718	106	49.17	155
April 10	44.147	129	60.83	115	50.612	132	50.72	142
20	44.018	144	61.98	79	50.480	150	52.14	124
30	43.874	153	62.77	43	50.330	158	53.38	102
Mai 10	43.721	155	63.20	8	50.172	159	54.40	76
20	43.566	152	63.28	28	50.013	153	55.16	48
30	43.414	145	63.00	61	49.860	140	55.64	19
Jun 9	43.269	134	62.39	94	49.720	123	55.83	10
19	43.135	119	61.45	123	49.597	101	55.73	40
29	43.016	101	60.22	149	49.496	78	55.33	67
Juli 9	42.915	80	58.73	170	49.418	51	54.66	93
19	42.835	54	57.03	187	49.367	23	53.73	119
29	42.781	27	55.16	196	49.344	8	52.54	142
Aug. 8	42.754	4	53.20	200	49.352	40	51.12	163
18	42.758	39	51.20	195	49.392	74	49.49	183
28	42.797	76	49.25	182	49.466	109	47.66	199
Sept. 7	42.873	116	47.43	162	49.575	147	45.67	214
17	42.989	157	45.81	133	49.722	186	43.53	226
27	43.146	198	44.48	98	49.908	225	41.27	233
Okt. 7	43.344	239	43.50	56	50.133	264	38.94	237
17	43.583	277	42.94	9	50.397	303	36.57	237
27	43.860	310	42.85	40	50.700	337	34.20	230
Nov. 6	44.170	336	43.25	91	51.037	367	31.90	219
16	44.506	355	44.16	139	51.404	389	29.71	199
26	44.861	362	45.55	184	51.793	402	27.72	175
Dez. 6	45.223	358	47.39	224	52.195	404	25.97	145
16	45.581	344	49.63	256	52.599	394	24.52	109
26	45.925	317	52.19	282	52.993	372	23.43	70
36	46.242		55.01		53.365		22.73	
Mittl. Ort	43.410		49.96		49.472		46.06	
sec δ, tg δ	1.164		−0.596		1.252		+0.752	
a, *a′*	+2.8		−18.3		+3.5		−18.3	
b, *b′*	+0.04		− 0.40		−0.05		− 0.40	

Tag	393) 196 G. Carinae AR.	393) 196 G. Carinae Dekl.	394) 36 Ursae maj. AR.	394) 36 Ursae maj. Dekl.	395) 9 H. Draconis AR.	395) 9 H. Draconis Dekl.	1273) 219 G. Velorum AR.	1273) 219 G. Velorum Dekl.
1947	$10^h\ 25^m$	$-58°\ 27'$	$10^h\ 27^m$	$+56°\ 14'$	$10^h\ 30^m$	$+75°\ 58'$	$10^h\ 30^m$	$-46°\ 43'$
	s	"	s	"	s	"	s	"
Jan. 1	56.146 391	45.21 316	15.258 468	62.73 39	40.72 95	62.36 108	42.573 336	29.01 309
11	56.537 327	48.37 346	15.726 414	63.12 89	41.67 84	63.44 162	42.909 287	32.10 332
21	56.864 255	51.83 365	16.140 347	64.01 135	42.51 70	65.06 210	43.196 230	35.42 345
31	57.119 177	55.48 374	16.487 270	65.36 174	43.21 54	67.16 249	43.426 169	38.87 350
Febr. 10	57.296 98	59.22 374	16.757 188	67.10 205	43.75 36	69.65 277	43.595 107	42.37 344
20	57.394 21	62.96 365	16.945 105	69.15 227	44.11 18	72.42 294	43.702 45	45.81 332
März 1	27 57.415 50	66.61 348	27 17.050 23	71.42 239	28 44.29 1	75.36 298	28 43.747 12	49.13 311
11	57.365 116	70.09 323	17.073 52	73.81 239	44.28 17	78.34 290	43.735 63	52.24 286
21	57.249 174	73.32 293	17.021 118	76.20 229	44.11 33	81.24 271	43.672 109	55.10 255
31	57.075 122	76.25 256	16.903 173	78.49 211	43.78 47	83.95 241	43.563 145	57.65 219
April 10	56.853 261	78.81 215	16.730 216	80.60 184	43.31 58	86.36 202	43.418 175	59.84 180
20	56.592 290	80.96 170	16.514 245	82.44 151	42.73 65	88.38 156	43.243 197	61.64 139
30	56.302 311	82.66 123	16.269 262	83.95 112	42.08 70	89.94 106	43.046 211	63.03 95
Mai 10	55.991 322	83.89 74	16.007 265	85.07 70	41.38 73	91.00 52	42.835 219	63.98 51
20	55.669 325	84.63 24	15.742 259	85.77 27	40.65 72	91.52 3	42.616 219	64.49 6
30	55.344 319	84.87 27	15.483 243	86.04 17	39.93 69	91.49 58	42.397 214	64.55 39
Juni 9	55.025 306	84.60 76	15.240 219	85.87 60	39.24 64	90.91 109	42.183 204	64.16 83
19	54.719 285	83.84 124	15.021 188	85.27 101	38.60 57	89.82 159	41.979 188	63.33 123
29	54.434 256	82.60 166	14.833 152	84.26 140	38.03 48	88.23 204	41.791 166	62.10 160
Juli 9	54.178 219	80.94 205	14.681 111	82.86 176	37.55 39	86.19 244	41.625 141	60.50 193
19	53.959 176	78.89 238	14.570 67	81.10 207	37.16 27	83.75 279	41.484 109	58.57 220
29	53.783 125	76.51 262	14.503 21	79.03 235	36.89 16	80.96 307	41.375 73	56.37 239
Aug. 8	53.658 67	73.89 279	14.482 28	76.68 258	36.73 4	77.89 329	41.302 32	53.98 251
18	53.591 5	71.10 285	14.510 80	74.10 276	36.69 8	74.60 344	41.270 13	51.47 254
28	53.586 63	68.25 282	14.590 132	71.34 290	36.77 21	71.16 353	41.283 62	48.93 246
Sept. 7	53.649 134	65.43 267	14.722 186	68.44 298	36.98 34	67.63 355	41.345 115	46.47 231
17	53.783 205	62.76 242	14.908 242	65.46 302	37.32 47	64.08 350	41.460 168	44.16 204
27	53.988 275	60.34 206	15.150 296	62.44 298	37.79 59	60.58 336	41.628 222	42.12 168
Okt. 7	54.263 341	58.28 162	15.446 350	59.46 290	38.38 71	57.22 317	41.850 273	40.44 125
17	54.604 401	56.66 109	15.796 402	56.56 275	39.09 82	54.05 289	42.123 321	39.19 74
27	55.005 450	55.57 50	16.198 448	53.81 251	39.91 92	51.16 253	42.444 362	38.45 18
Nov. 6	55.455 487	55.07 13	16.646 488	51.30 223	40.83 99	48.63 212	42.806 394	38.27 41
16	55.942 508	55.20 76	17.134 517	49.07 187	41.82 105	46.51 163	43.200 414	38.68 99
26	56.450 514	55.96 139	17.651 535	47.20 146	42.87 109	44.88 109	43.614 422	39.67 155
Dez. 6	56.964 502	57.35 197	18.186 538	45.74 98	43.96 110	43.79 51	44.036 416	41.22 208
16	57.466 473	59.32 250	18.724 525	44.76 48	45.06 107	43.28 9	44.452 398	43.30 254
26	57.939 430	61.82 294	19.249 496	44.28 4	46.13 100	43.37 69	44.850 365	45.84 292
36	58.369	64.76	19.745	44.32	47.13	44.06	45.215	48.76
Mittl. Ort	55.696	65.92	14.907	71.09	38.72	72.83	42.502	47.52
sec δ, tg δ	1.912	−1.630	1.800	+1.497	4.130	+4.007	1.459	−1.062
a, *a'*	+2.2	−18.4	+3.9	−18.4	+5.1	−18.5	+2.5	−18.5
b, *b'*	+0.10	− 0.40	−0.09	− 0.39	−0.25	− 0.38	+0.07	− 0.38

Tag	404) 33 Sextantis				406) ϑ Carinae				407) 42 Leonis min.				409) 53 Leonis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$10^h\ 38^m$		$-1°\ 27'$		$10^h\ 41^m$		$-64°\ 6'$		$10^h\ 42^m$		$+30°\ 57'$		$10^h\ 46^m$		$+10°\ 49'$	
	s		"		s		"		s		"		s		"	
Jan. 1	42.082	292	38.90	208	4.14	47	36.29	301	55.141	340	39.52	83	28.025	305	36.13	166
11	42.374	258	40.98	194	4.61	40	39.30	336	55.481	306	38.69	45	28.330	273	34.47	142
21	42.632	218	42.92	176	5.01	32	42.66	362	55.787	262	38.24	5	28.603	233	33.05	114
31	42.850	173	44.68	154	5.33	22	46.28	377	56.049	211	38.19	33	28.836	189	31.91	86
Febr. 10	43.023	126	46.22	129	5.55	14	50.05	383	56.260	156	38.52	66	29.025	141	31.05	56
20	43.149	79	47.51	104	5.69	5	53.88	379	56.416	102	39.18	94	29.166	93	30.49	29
März 2	43.228	35	48.55	78	5.74	4	57.67	366	56.518	48	40.12	117	29.259	47	30.20	3
11	[2] 43.263	5	49.33	55	[3] 5.70	12	61.33	345	[3] 56.566	1	41.29	132	[4] 29.306	5	30.17	19
21	43.258	38	49.88	32	5.58	18	64.78	319	56.565	44	42.61	139	29.311	30	30.36	37
31	43.220	67	50.20	11	5.40	25	67.97	285	56.521	79	44.00	140	29.281	60	30.73	50
April 10	43.153	87	50.31	6	5.15	30	70.82	247	56.442	105	45.40	135	29.221	83	31.23	59
20	43.066	101	50.25	21	4.85	34	73.29	203	56.337	124	46.75	123	29.138	98	31.82	66
30	42.965	108	50.04	35	4.51	37	75.32	156	56.213	135	47.98	106	29.040	107	32.48	67
Mai 10	42.857	111	49.69	46	4.14	39	76.88	107	56.078	139	49.04	87	28.933	110	33.15	67
20	42.746	108	49.23	55	3.75	40	77.95	55	55.939	136	49.91	65	28.823	109	33.82	64
30	42.638	102	48.68	62	3.35	40	78.50	3	55.803	128	50.56	40	28.714	102	34.46	59
Juni 9	42.536	92	48.06	68	2.95	40	78.53	49	55.675	115	50.96	15	28.612	94	35.05	53
19	42.444	80	47.38	72	2.55	37	78.04	99	55.560	100	51.11	10	28.518	81	35.58	45
29	42.364	65	46.66	74	2.18	34	77.05	146	55.460	80	51.01	35	28.437	66	36.03	35
Juli 9	42.299	48	45.92	72	1.84	31	75.59	189	55.380	58	50.66	61	28.371	49	36.38	25
19	42.251	28	45.20	69	1.53	25	73.70	226	55.322	35	50.05	84	28.322	30	36.63	12
29	42.223	7	44.51	63	1.28	20	71.44	256	55.287	9	49.21	108	28.292	9	36.75	1
Aug. 8	42.216	18	43.88	53	1.08	13	68.88	278	55.278	19	48.13	130	28.283	15	36.74	17
18	42.234	43	43.35	39	0.95	5	66.10	290	55.297	50	46.83	150	28.298	42	36.57	34
28	42.277	73	42.96	21	0.90	3	63.20	292	55.347	83	45.33	170	28.340	70	36.23	53
Sept. 7	42.350	104	42.75	0	0.93	11	60.28	283	55.430	117	43.63	188	28.410	101	35.70	74
17	42.454	138	42.75	24	1.04	20	57.45	263	55.547	155	41.75	204	28.511	135	34.96	95
27	42.592	173	42.99	51	1.24	29	54.82	232	55.702	193	39.71	217	28.646	170	34.01	118
Okt. 7	42.765	208	43.50	81	1.53	37	52.50	190	55.895	233	37.54	226	28.816	206	32.83	141
17	42.973	243	44.31	109	1.90	45	50.60	140	56.128	270	35.28	232	29.022	242	31.42	161
27	43.216	275	45.40	138	2.35	51	49.20	82	56.398	306	32.96	233	29.264	274	29.81	180
Nov. 6	43.491	301	46.78	165	2.86	55	48.38	21	56.704	337	30.63	227	29.538	303	28.01	194
16	43.792	322	48.43	186	3.41	59	48.17	44	57.041	362	28.36	216	29.841	325	26.07	204
26	44.114	333	50.29	204	4.00	60	48.61	109	57.403	378	26.20	198	30.166	340	24.03	207
Dez. 6	44.447	336	52.33	214	4.60	58	49.70	170	57.781	384	24.22	173	30.506	344	21.96	205
16	44.783	329	54.47	218	5.18	56	51.40	227	58.165	377	22.49	144	30.850	339	19.91	196
26	45.112	310	56.65	215	5.74	51	53.67	277	58.542	360	21.05	109	31.189	323	17.95	180
36	45.422		58.80		6.25		56.44		58.902		19.96		31.512		16.15	
Mittl. Ort	42.371		44.73		3.65		58.53		55.325		43.21		28.335		34.16	
sec δ, tg δ	1.000		−0.026		2.291		−2.061		1.166		+0.600		1.018		+0.191	
a, *a′*	+3.1		−18.8		+2.1		−18.9		+3.3		−18.9		+3.2		−19.0	
b, *b′*	0.00		−0.35		+0.13		−0.34		−0.04		−0.33		−0.01		−0.32	

Tag	415) 239 G. Velorum AR.		415) Dekl.		416) β Ursae maj. AR.		416) Dekl.		417) α Ursae maj. AR.		417) Dekl.		418) χ Leonis AR.		418) Dekl.	
1947	10h 57m		−41° 56′		10h 58m		+56° 39′		11h cm		+62° 1′		11h 2m		+7° 37′	
	s		"		s		"		s		"		s		"	
Jan. 1	42.753	345	10.47	288	39.542	496	51.37	4	28.78	56	64.70	21	16.612	309	25.36	182
11	43.098	305	13.35	311	40.038	451	51.41	58	29.34	51	64.91	77	16.921	280	23.54	161
21	43.403	257	16.46	325	40.489	391	51.99	109	29.85	45	65.68	129	17.201	242	21.93	136
31	43.660	202	19.71	330	40.880	320	53.08	155	30.30	37	66.97	176	17.443	199	20.57	109
Febr. 10	43.862	145	23.01	327	41.200	242	54.63	193	30.67	27	68.73	214	17.642	154	19.48	79
20	44.007	89	26.28	317	41.442	160	56.56	221	30.94	18	70.87	243	17.796	107	18.69	51
März 2	44.096	36	29.45	299	41.602	77	58.77	241	31.12	9	73.30	259	17.903	62	18.18	25
11	7 44.132	14	32.44	276	7 41.679	1	61.18	248	8 31.21	1	75.89	266	8 17.965	20	17.93	1
21	44.118	58	35.20	248	41.678	71	63.66	245	31.20	9	78.55	260	17.985	16	17.92	19
31	44.060	94	37.68	217	41.607	132	66.11	232	31.11	17	81.15	245	17.969	47	18.11	35
April 10	43.966	125	39.85	181	41.475	183	68.43	210	30.94	22	83.60	219	17.922	70	18.46	47
20	43.841	149	41.66	145	41.292	220	70.53	180	30.72	27	85.79	186	17.852	87	18.93	56
30	43.692	166	43.11	105	41.072	246	72.33	145	30.45	30	87.65	147	17.765	99	19.49	62
Mai 10	43.526	177	44.16	64	40.826	260	73.78	104	30.15	32	89.12	103	17.666	104	20.11	64
20	43.349	183	44.80	23	40.566	263	74.82	60	29.83	33	90.15	55	17.562	105	20.75	64
30	43.166	183	45.03	19	40.303	256	75.42	15	29.50	32	90.70	8	17.457	102	21.39	62
Juni 9	42.983	179	44.84	58	40.047	241	75.57	30	29.18	30	90.78	41	17.355	96	22.01	58
19	42.804	170	44.26	97	39.806	218	75.27	74	28.88	28	90.37	88	17.259	86	22.59	53
29	42.634	155	43.29	132	39.588	190	74.53	116	28.60	24	89.49	133	17.173	74	23.12	45
Juli 9	42.479	137	41.97	163	39.398	156	73.37	156	28.36	20	88.16	174	17.099	59	23.57	37
19	42.342	113	40.34	190	39.242	117	71.81	193	28.16	16	86.42	213	17.040	43	23.94	27
29	42.229	85	38.44	211	39.125	75	69.88	225	28.00	10	84.29	245	16.997	23	24.21	14
Aug. 8	42.144	50	36.33	224	39.050	29	67.63	253	27.90	5	81.84	275	16.974	1	24.35	1
18	42.094	12	34.09	229	39.021	20	65.10	277	27.85	0	79.09	298	16.973	24	24.34	17
28	42.082	32	31.80	225	39.041	72	62.33	296	27.85	7	76.11	317	16.997	52	24.17	36
Sept. 7	42.114	78	29.55	213	39.113	127	59.37	310	27.92	14	72.94	329	17.049	84	23.81	57
17	42.192	129	27.42	190	39.240	185	56.27	317	28.06	20	69.65	335	17.133	117	23.24	79
27	42.321	180	25.52	160	39.425	243	53.10	320	28.26	27	66.30	335	17.250	153	22.45	103
Okt. 7	42.501	232	23.92	121	39.668	301	49.90	315	28.53	34	62.95	327	17.403	190	21.42	128
17	42.733	280	22.71	74	39.969	359	46.75	304	28.87	40	59.68	313	17.593	227	20.14	151
27	43.013	323	21.97	23	40.328	413	43.71	285	29.27	47	56.55	291	17.820	261	18.63	172
Nov. 6	43.336	360	21.74	30	40.741	460	40.86	259	29.74	52	53.64	260	18.081	292	16.91	190
16	43.696	386	22.04	86	41.201	499	38.27	226	30.26	56	51.04	224	18.373	318	15.01	203
26	44.082	401	22.90	140	41.700	526	36.01	185	30.82	60	48.80	179	18.691	334	12.98	211
Dez. 6	44.483	403	24.30	190	42.226	540	34.16	138	31.42	61	47.01	129	19.025	341	10.87	213
16	44.886	393	26.20	234	42.766	537	32.78	87	32.03	61	45.72	74	19.366	339	8.74	207
26	45.279	369	28.54	271	43.303	518	31.91	32	32.64	59	44.98	17	19.705	325	6.67	195
36	45.648		31.25		43.821		31.59		33.23		44.81		20.030		4.72	
Mittl. Ort	42.999		28.54		39.380		60.97		28.43		75.13		17.011		22.55	
sec δ, tg δ	1.344		−0.899		1.820		+1.520		2.133		+1.884		1.009		+0.134	
a, *a′*	+2.8		−19.3		+3.6		−19.3		+3.7		−19.4		+3.1		−19.4	
b, *b′*	+0.06		−0.27		−0.10		−0.26		−0.12		−0.26		−0.01		−0.25	

Tag	420) ψ Ursae maj.				421) β Crateris				422) δ Leonis				423) ϑ Leonis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$11^h\ 6^m$		$+44°\ 46'$		$11^h\ 9^m$		$-22°\ 31'$		$11^h\ 11^m$		$+20°\ 48'$		$11^h\ 11^m$		$+15°\ 42'$	
	s		"		s		"		s		"		s		"	
Jan. 1	41.324	409	63.66	50	2.440	315	57.46	259	17.121	332	50.38	142	27.199	322	70.58	159
11	41.733	374	63.16	0	2.755	284	60.05	267	17.453	302	48.96	109	27.521	295	68.99	131
21	42.107	327	63.16	48	3.039	244	62.72	266	17.755	266	47.87	74	27.816	259	67.68	99
31	42.434	271	63.64	92	3.283	200	65.38	259	18.021	222	47.13	38	28.075	215	66.69	67
Febr. 10	42.705	209	64.56	132	3.483	153	67.97	246	18.243	174	46.75	4	28.290	168	66.02	34
20	42.914	146	65.88	164	3.636	106	70.43	228	18.417	124	46.71	27	28.458	121	65.68	3
März 2	43.060	82	67.52	187	3.742	60	72.71	206	18.541	77	46.98	55	28.579	75	65.65	24
11	43.142	21	69.39	202	3.802	18	74.77	182	18.618	31	47.53	77	28.654	31	65.89	47
21	43.163	34	71.41	206	3.820	19	76.59	155	18.649	9	48.30	93	28.685	8	66.36	65
31	43.129	80	73.47	202	3.801	50	78.14	127	18.640	42	49.23	103	28.677	40	67.01	78
April 10	43.049	118	75.49	189	3.751	76	79.41	100	18.598	70	50.26	107	28.637	66	67.79	85
20	42.931	147	77.38	169	3.675	94	80.41	71	18.528	90	51.33	106	28.571	85	68.64	89
30	42.784	167	79.07	143	3.581	109	81.12	42	18.438	103	52.39	100	28.486	99	69.53	87
Mai 10	42.617	178	80.50	112	3.472	117	81.54	15	18.335	111	53.39	91	28.387	105	70.40	81
20	42.439	181	81.62	77	3.355	121	81.69	13	18.224	114	54.30	78	28.282	108	71.21	74
30	42.258	178	82.39	42	3.234	121	81.56	38	18.110	111	55.08	63	28.174	107	71.95	64
Juni 9	42.080	167	82.81	4	3.113	118	81.18	63	17.999	105	55.71	45	28.067	100	72.59	52
19	41.913	152	82.85	34	2.995	111	80.55	87	17.894	96	56.16	28	27.967	92	73.11	39
29	41.761	133	82.51	71	2.884	101	79.68	106	17.798	84	56.44	9	27.875	80	73.50	23
Juli 9	41.628	109	81.80	105	2.783	88	78.62	123	17.714	69	56.53	11	27.795	66	73.73	8
19	41.519	83	80.75	139	2.695	71	77.39	137	17.645	51	56.42	31	27.729	50	73.81	9
29	41.436	52	79.36	169	2.624	51	76.02	145	17.594	31	56.11	52	27.679	30	73.72	26
Aug. 8	41.384	20	77.67	198	2.573	27	74.57	147	17.563	8	55.59	73	27.649	8	73.46	45
18	41.364	16	75.69	222	2.546	2	73.10	144	17.555	18	54.86	94	27.641	17	73.01	64
28	41.380	56	73.47	245	2.548	34	71.66	135	17.573	47	53.92	115	27.658	46	72.37	86
Sept. 7	41.436	97	71.02	262	2.582	69	70.31	119	17.620	79	52.77	137	27.704	77	71.51	106
17	41.533	142	68.40	275	2.651	108	69.12	95	17.699	114	51.40	157	27.781	111	70.45	128
27	41.675	189	65.65	285	2.759	149	68.17	66	17.813	152	49.83	176	27.892	148	69.17	150
Okt. 7	41.864	237	62.80	288	2.908	191	67.51	31	17.965	190	48.07	195	28.040	186	67.67	169
17	42.101	284	59.92	287	3.099	233	67.20	8	18.155	230	46.12	209	28.226	224	65.98	188
27	42.385	329	57.05	277	3.332	270	67.28	49	18.385	267	44.03	220	28.450	261	64.10	203
Nov. 6	42.714	370	54.28	262	3.602	303	67.77	91	18.652	300	41.83	227	28.711	294	62.07	214
16	43.084	403	51.66	238	3.905	329	68.68	133	18.952	327	39.56	226	29.005	321	59.93	220
26	43.487	427	49.28	209	4.234	346	70.01	172	19.279	348	37.30	221	29.326	340	57.73	218
Dez. 6	43.914	440	47.19	172	4.580	353	71.73	205	19.627	358	35.09	208	29.666	350	55.55	212
16	44.354	440	45.47	129	4.933	349	73.78	232	19.985	358	33.01	188	30.016	349	53.43	197
26	44.794	427	44.18	83	5.282	333	76.10	253	20.343	347	31.13	163	30.365	338	51.46	177
36	45.221		43.35		5.615		78.63		20.690		29.50		30.703		49.69	
Mittl. Ort	41.472		71.29		2.883		70.09		17.516		51.81		27.618		70.45	
sec δ, tg δ	1.409		+0.993		1.083		−0.415		1.070		+0.380		1.039		+0.281	
a, *a′*	+3.4		−19.5		+3.0		−19.5		+3.2		−19.6		+3.2		−19.6	
b, *b′*	−0.06		−0.23		+0.03		−0.22		−0.02		−0.21		−0.02		−0.21	

Tag		425) ν Ursae maj. AR.		425) ν Ursae maj. Dekl.		426) δ Crateris AR.		426) δ Crateris Dekl.	
1947		11h 15m		+33° 22′		11h 16m		−14° 29′	
		s		"		s		"	
Jan.	1	36.891	364	56.43	100	40.796	313	19.24	242
	11	37.255	334	55.43	58	41.109	284	21.66	242
	21	37.589	295	54.85	14	41.393	247	24.08	235
	31	37.884	248	54.71	28	41.640	205	26.43	222
Febr.	10	38.132	195	54.99	67	41.845	160	28.65	205
	20	38.327	140	55.66	100	42.005	115	30.70	184
März	2	38.467	86	56.66	127	42.120	71	32.54	161
	12	38.553	35	57.93	147	42.191	30	34.15	135
	21	[12]38.588	11	59.40	159	[12]42.221	7	35.50	111
	31	38.577	50	60.99	162	42.214	36	36.61	85
April	10	38.527	82	62.61	158	42.178	62	37.46	60
	20	38.445	107	64.19	148	42.116	81	38.06	37
	30	38.338	124	65.67	132	42.035	95	38.43	15
Mai	10	38.214	134	66.99	110	41.940	103	38.58	8
	20	38.080	138	68.09	87	41.837	108	38.50	27
	30	37.942	136	68.96	60	41.729	109	38.23	46
Juni	9	37.806	130	69.56	31	41.620	106	37.77	63
	19	37.676	119	69.87	2	41.514	100	37.14	79
	29	37.557	105	69.89	28	41.414	91	36.35	92
Juli	9	37.452	88	69.61	56	41.323	80	35.43	102
	19	37.364	68	69.05	85	41.243	65	34.41	109
	29	37.296	45	68.20	112	41.178	47	33.32	111
Aug.	8	37.251	19	67.08	139	41.131	25	32.21	110
	18	37.232	11	65.69	163	41.106	1	31.11	104
	28	37.243	43	64.06	186	41.107	30	30.07	91
Sept.	7	37.286	78	62.20	206	41.137	63	29.16	74
	17	37.364	117	60.14	225	41.200	100	28.42	51
	27	37.481	158	57.89	239	41.300	139	27.91	23
Okt.	7	37.639	201	55.50	251	41.439	179	27.68	9
	17	37.840	243	52.99	258	41.618	219	27.77	44
	27	38.083	284	50.41	259	41.837	256	28.21	81
Nov.	6	38.367	321	47.82	254	42.093	290	29.02	117
	16	38.688	353	45.28	242	42.383	316	30.19	152
	26	39.041	376	42.86	223	42.699	335	31.71	182
Dez.	6	39.417	388	40.63	198	43.034	343	33.53	208
	16	39.805	389	38.65	165	43.377	342	35.61	228
	26	40.194	380	37.00	128	43.719	328	37.89	239
	36	40.574		35.72		44.047		40.28	
Mittl. Ort		37.222		61.53		41.298		29.30	
sec δ, tg δ		1.198		+0.659		1.033		−0.258	
a, a'		+3.2		−19.7		+3.0		−19.7	
b, b'		−0.04		−0.19		+0.02		−0.19	

Tag		427) σ Leonis AR.		427) σ Leonis Dekl.		428) π Centauri AR.		428) π Centauri Dekl.	
1947		11h 18m		+6° 18′		11h 18m		−54° 11′	
		s		"		s		"	
Jan.	1	23.718	316	75.44	192	34.626	426	39.54	272
	11	24.034	289	73.52	171	35.052	379	42.26	308
	21	24.323	254	71.81	147	35.431	324	45.34	333
	31	24.577	213	70.34	119	35.755	262	48.67	349
Febr.	10	24.790	168	69.15	91	36.017	195	52.16	357
	20	24.958	123	68.24	62	36.212	128	55.73	356
März	2	25.081	78	67.62	34	36.340	63	59.29	346
	12	25.159	37	67.28	10	36.403	1	62.75	330
	21	[12]25.196	0	67.18	12	[12]36.404	55	66.05	306
	31	25.196	31	67.30	29	36.349	104	69.11	278
April	10	25.165	56	67.59	43	36.245	147	71.89	244
	20	25.109	76	68.02	53	36.098	182	74.33	207
	30	25.033	89	68.55	59	35.916	211	76.40	166
Mai	10	24.944	97	69.14	64	35.705	233	78.06	122
	20	24.847	100	69.78	64	35.472	248	79.28	75
	30	24.747	100	70.42	64	35.224	257	80.03	29
Juni	9	24.647	97	71.06	60	34.967	259	80.32	18
	19	24.550	89	71.66	56	34.708	253	80.14	65
	29	24.461	81	72.22	49	34.455	242	79.49	109
Juli	9	24.380	68	72.71	42	34.213	223	78.40	150
	19	24.312	53	73.13	31	33.990	196	76.90	186
	29	24.259	36	73.44	19	33.794	163	75.04	217
Aug.	8	24.223	15	73.63	6	33.631	120	72.87	240
	18	24.208	9	73.69	11	33.511	71	70.47	255
	28	24.217	36	73.58	30	33.440	16	67.92	261
Sept.	7	24.253	67	73.28	51	33.424	46	65.31	256
	17	24.320	101	72.77	73	33.470	112	62.75	242
	27	24.421	137	72.04	98	33.582	179	60.33	217
Okt.	7	24.558	175	71.06	122	33.761	246	58.16	182
	17	24.733	214	69.84	147	34.007	311	56.34	138
	27	24.947	251	68.37	169	34.318	369	54.96	87
Nov.	6	25.198	283	66.68	188	34.687	418	54.09	31
	16	25.481	311	64.80	204	35.105	455	53.78	29
	26	25.792	330	62.76	214	35.560	477	54.07	89
Dez.	6	26.122	341	60.62	216	36.037	484	54.96	146
	16	26.463	340	58.46	213	36.521	476	56.42	200
	26	26.803	330	56.33	203	36.997	451	58.42	249
	36	27.133		54.30		37.448		60.91	
Mittl. Ort		24.207		72.35		34.946		60.93	
sec δ, tg δ		1.006		+0.111		1.709		−1.387	
a, a'		+3.1		−19.7		+2.7		−19.7	
b, b'		−0.01		−0.18		+0.09		−0.18	

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Tag	429) Grb 1771 U Maj				433) λ Draconis				434) ξ Hydrae				436) λ Centauri			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$11^h\ 19^m$		$+64°\ 36'$		$11^h\ 28^m$		$+69°\ 36'$		$11^h\ 30^m$		$-31°\ 33'$		$11^h\ 33^m$		$-62°\ 43'$	
	s		"		s		"		s		"		s		"	
Jan. 1	43.68	62	63.38	5	17.36	74	73.47	10	22.835	341	35.07	260	19.13	52	11.40	251
11	44.30	58	63.43	65	18.10	70	73.57	71	23.176	311	37.67	277	19.65	48	13.91	293
21	44.88	51	64.08	120	18.80	62	74.28	129	23.487	273	40.44	287	20.13	41	16.84	327
31	45.39	42	65.28	170	19.42	52	75.57	180	23.760	228	43.31	289	20.54	34	20.11	352
Febr. 10	45.81	33	66.98	213	19.94	41	77.37	224	23.988	180	46.20	283	20.88	25	23.63	366
20	46.14	23	69.11	244	20.35	30	79.61	257	24.168	131	49.03	271	21.13	18	27.29	371
März 2	46.37	13	71.55	266	20.65	17	82.18	279	24.299	83	51.74	255	21.31	10	31.00	369
12	46.50	3	74.21	276	20.82	4	84.97	288	24.382	39	54.29	233	21.41	1	34.69	359
21	13 46.53	6	76.97	274	15 20.86	7	87.85	287	15 24.421	1	56.62	208	16 21.42	5	38.28	340
31	46.47	15	79.71	260	20.79	18	90.72	273	24.420	36	58.70	181	21.37	12	41.68	315
April 10	46.32	22	82.31	238	20.61	27	93.45	249	24.384	66	60.51	152	21.25	17	44.83	284
20	46.10	28	84.69	206	20.34	35	95.94	216	24.318	90	62.03	120	21.08	23	47.67	248
30	45.82	32	86.75	167	19.99	40	98.10	175	24.228	109	63.23	89	20.85	27	50.15	208
Mai 10	45.50	35	88.42	123	19.59	44	99.85	129	24.119	122	64.12	56	20.58	30	52.23	164
20	45.15	36	89.65	75	19.15	47	101.14	79	23.997	131	64.68	23	20.28	33	53.87	116
30	44.79	36	90.40	25	18.68	47	101.93	26	23.866	137	64.91	9	19.95	35	55.03	67
Juni 9	44.43	35	90.65	25	18.21	46	102.19	25	23.729	138	64.82	41	19.60	36	55.70	16
19	44.08	33	90.40	74	17.75	44	101.94	78	23.591	135	64.41	71	19.24	36	55.86	34
29	43.75	30	89.66	122	17.31	41	101.16	128	23.456	129	63.70	100	18.88	34	55.52	84
Juli 9	43.45	26	88.44	166	16.90	36	99.88	174	23.327	118	62.70	125	18.54	33	54.68	130
19	43.19	22	86.78	208	16.54	30	98.14	218	23.209	104	61.45	146	18.21	30	53.38	173
29	42.97	16	84.70	245	16.24	25	95.96	256	23.105	84	59.99	162	17.91	25	51.65	210
Aug. 8	42.81	11	82.25	276	15.99	17	93.40	289	23.021	60	58.37	173	17.66	21	49.55	240
18	42.70	4	79.49	303	15.82	9	90.51	317	22.961	30	56.64	177	17.45	14	47.15	263
28	42.66	2	76.46	325	15.73	2	87.34	339	22.931	4	54.87	174	17.31	7	44.52	276
Sept. 7	42.68	9	73.21	339	15.71	7	83.95	354	22.935	43	53.13	163	17.24	1	41.76	278
17	42.77	17	69.82	349	15.78	17	80.41	362	22.978	86	51.50	144	17.25	10	38.98	270
27	42.94	24	66.33	350	15.95	26	76.79	364	23.064	133	50.06	118	17.35	18	36.28	250
Okt. 7	43.18	32	62.83	345	16.21	35	73.15	358	23.197	179	48.88	84	17.53	27	33.78	220
17	43.50	40	59.38	332	16.56	44	69.57	343	23.376	226	48.04	46	17.80	35	31.58	180
27	43.90	46	56.06	310	17.00	53	66.14	320	23.602	270	47.58	1	18.15	43	29.78	131
Nov. 6	44.36	53	52.96	282	17.53	61	62.94	289	23.872	309	47.57	45	18.58	49	28.47	75
16	44.89	59	50.14	245	18.14	69	60.05	251	24.181	340	48.02	92	19.07	55	27.72	15
26	45.48	62	47.69	200	18.83	73	57.54	204	24.521	362	48.94	138	19.62	58	27.57	48
Dez. 6	46.10	65	45.69	149	19.56	77	55.50	150	24.883	372	50.32	179	20.20	58	28.05	110
16	46.75	66	44.20	93	20.33	78	54.00	92	25.255	371	52.11	217	20.78	59	29.15	168
26	47.41	64	43.27	34	21.11	77	53.08	31	25.626	358	54.28	247	21.37	55	30.83	223
36	48.05		42.93		21.88		52.77		25.984		56.75		21.92		33.06	
Mittl. Ort	43.38		74.81		16.85		85.73		23.413		50.64		19.53		34.72	
sec δ, tg δ	2.333		+2.108		2.872		+2.692		1.174		−0.614		2.182		−1.940	
a, *a'*	+3.6		−19.7		+3.6		−19.9		+3.0		−19.9		+2.8		−19.9	
b, *b'*	−0.14		−0.17		−0.18		−0.14		+0.04		−0.13		+0.13		−0.12	

Tag	437) υ Leonis AR.		Dekl.		440) 3 Draconis AR.		Dekl.		441) χ Ursae maj. AR.		Dekl.		444) β Leonis AR.		Dekl.	
1947	11h 34m		−0° 31′		11h 39m		+67° 1′		11h 43m		+48° 3′		11h 46m		+14° 51′	
	s		″		s		″		s		″		s		″	
Jan. 1	13.446	319	46.24	211	32.26	68	65.68	13	15.201	442	74.72	78	20.818	333	66.03	179
11	13.765	294	48.35	199	32.94	64	65.55	$\overline{48}$	15.643	416	73.94	24	21.151	311	64.24	150
21	14.059	261	50.34	180	33.58	58	66.03	107	16.059	375	73.70	$\overline{29}$	21.462	281	62.74	118
31	14.320	223	52.14	157	34.16	49	67.10	160	16.434	323	73.99	81	21.743	242	61.56	84
Febr. 10	14.543	180	53.71	132	34.65	40	68.70	207	16.757	264	74.80	127	21.985	199	60.72	50
20	14.723	136	55.03	105	35.05	29	70.77	244	17.021	201	76.07	165	22.184	154	60.22	16
März 2	14.859	93	56.08	79	35.34	19	73.21	269	17.222	135	77.72	196	22.338	109	60.06	$\overline{14}$
12	14.952	52	56.87	53	35.53	7	75.90	282	[19] 17.357	71	79.68	217	[19] 22.447	66	60.20	40
21	[16] 15.004	15	57.40	29	[18] 35.60	$\overline{3}$	78.72	284	17.428	10	81.85	228	22.513	27	60.60	62
31	15.019	$\overline{16}$	57.69	$\underline{9}$	35.57	13	81.56	275	17.438	$\overline{44}$	84.13	228	22.540	$\overline{8}$	61.22	78
April 10	15.003	42	57.78	9	35.44	21	84.31	254	17.394	89	86.41	219	22.532	37	62.00	88
20	14.961	63	57.69	24	35.23	28	86.85	225	17.305	127	88.60	202	22.495	60	62.88	94
30	14.898	78	57.45	37	34.95	34	89.10	187	17.178	157	90.62	177	22.435	77	63.82	95
Mai 10	14.820	88	57.08	46	34.61	38	90.97	144	17.021	177	92.39	146	22.358	91	64.77	91
20	14.732	94	56.62	53	34.23	40	92.41	96	16.844	189	93.85	111	22.267	98	65.68	85
30	14.638	97	56.09	59	33.83	41	93.37	45	16.655	195	94.96	72	22.169	102	66.53	75
Juni 9	14.541	97	55.50	62	33.42	40	93.82	$\overline{7}$	16.460	193	95.68	32	22.067	102	67.28	62
19	14.444	92	54.88	63	33.02	40	93.75	58	16.267	186	96.00	$\overline{9}$	21.965	100	67.90	49
29	14.352	86	54.25	63	32.62	36	93.17	108	16.081	173	95.91	51	21.865	94	68.39	34
Juli 9	14.266	77	53.62	61	32.26	33	92.09	155	15.908	156	95.40	91	21.771	85	68.73	17
19	14.189	65	53.01	56	31.93	28	90.54	199	15.752	134	94.49	130	21.686	74	68.90	0
29	14.124	49	52.45	49	31.65	24	88.55	240	15.618	107	93.19	166	21.612	59	68.90	19
Aug. 8	14.075	31	51.96	39	31.41	17	86.15	274	15.511	77	91.53	199	21.553	40	68.71	39
18	14.044	8	51.57	25	31.24	10	83.41	305	15.434	42	89.54	230	21.513	18	68.32	60
28	14.036	$\overline{19}$	51.32	$\underline{9}$	31.14	$\underline{4}$	80.36	329	15.392	$\underline{3}$	87.24	256	21.495	$\overline{8}$	67.72	82
Sept. 7	14.055	50	51.23	10	31.10	4	77.07	347	15.389	41	84.68	279	21.503	39	66.90	104
17	14.105	84	51.33	33	31.14	12	73.60	358	15.430	89	81.89	296	21.542	73	65.86	127
27	14.189	121	51.66	59	31.26	20	70.02	363	15.519	139	78.93	310	21.615	110	64.59	149
Okt. 7	14.310	160	52.25	86	31.46	29	66.39	360	15.658	192	75.83	317	21.725	151	63.10	172
17	14.470	200	53.11	113	31.75	38	62.79	350	15.850	246	72.66	317	21.876	191	61.38	191
27	14.670	238	54.24	140	32.13	46	59.29	330	16.096	298	69.49	311	22.067	232	59.47	209
Nov. 6	14.908	274	55.64	166	32.59	53	55.99	302	16.394	348	66.38	296	22.299	269	57.38	222
16	15.182	303	57.30	188	33.12	60	52.97	266	16.742	391	63.42	274	22.568	301	55.16	230
26	15.485	324	59.18	205	33.72	66	50.31	222	17.133	425	60.68	245	22.869	327	52.86	231
Dez. 6	15.809	338	61.23	216	34.38	69	48.09	171	17.558	448	58.23	206	23.196	343	50.55	227
16	16.147	340	63.39	221	35.07	70	46.38	114	18.006	458	56.17	162	23.539	349	48.28	214
26	16.487	331	65.60	219	35.77	70	45.24	54	18.464	454	54.55	113	23.888	344	46.14	195
36	16.818		67.79		36.47		44.70		18.918		53.42		24.232		44.19	
Mittl. Ort	14.039		51.50		32.02		78.02		15.524		84.04		21.428		66.13	
sec δ, tg δ	1.000		−0.009		2.563		+2.360		1.497		+1.113		1.035		+0.266	
a, *a′*	+3.1		−19.9		+3.4		−20.0		+3.2		−20.0		+3.1		−20.0	
b, *b′*	0.00		−0.11		−0.16		−0.09		−0.07		−0.07		−0.02		−0.06	

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Tag	445) β Virginis[1] AR.		445) Dekl.		447) γ Ursae maj. AR.		447) Dekl.		450) o Virginis AR.		450) Dekl.		452) δ Centauri AR.		452) Dekl.	
1947	11h 47m		+2° 3′		11h 51m		+53° 58′		12h 2m		+9° 1′		12h 5m		−50° 25′	
	s		″		s		″		s		″		s		″	
Jan. 1	55.352	325	52.64	209	2.815	492	71.34	69	29.817	332	40.06	197	35.218	439	17.19	230
11	55.677	303	50.55	192	3.307	464	70.65	11	30.149	312	38.09	175	35.657	408	19.49	266
21	55.980	272	48.63	172	3.771	422	70.54	$\overline{46}$	30.461	285	36.34	148	36.065	366	22.15	296
31	56.252	236	46.91	148	4.193	368	71.00	99	30.746	249	34.86	117	36.431	317	25.11	316
Febr. 10	56.488	194	45.43	120	4.561	303	71.99	148	30.995	209	33.69	85	36.748	262	28.27	328
20	56.682	150	44.23	91	4.864	232	73.47	188	31.204	167	32.84	54	37.010	203	31.55	333
März 2	56.832	107	43.32	64	5.096	159	75.35	219	31.371	123	32.30	23	37.213	145	34.88	329
12	[20] 56.939	67	42.68	38	[21] 5.255	86	77.54	240	31.494	82	32.07	$\overline{5}$	37.358	89	38.17	319
21*)	57.006	30	42.30	15	5.341	17	79.94	250	[24] 31.576	44	32.12	28	[24] 37.447	37	41.36	303
31	57.036	$\overline{3}$	42.15	$\overline{6}$	5.358	$\overline{46}$	82.44	250	31.620	10	32.40	47	37.484	$\overline{13}$	44.39	281
April 10	57.033	30	42.21	23	5.312	101	84.94	238	31.630	$\overline{19}$	32.87	61	37.471	56	47.20	255
20	57.003	52	42.44	37	5.211	146	87.32	219	31.611	44	33.48	72	37.415	95	49.75	223
30	56.951	68	42.81	47	5.065	183	89.51	191	31.567	62	34.20	77	37.320	129	51.98	189
Mai 10	56.883	81	43.28	54	4.882	208	91.42	156	31.505	76	34.97	79	37.191	157	53.87	151
20	56.802	89	43.82	59	4.674	226	92.98	118	31.429	87	35.76	78	37.034	180	55.38	111
30	56.713	93	44.41	61	4.448	234	94.16	75	31.342	94	36.54	73	36.854	199	56.49	70
Juni 9	56.620	94	45.02	61	4.214	235	94.91	31	31.248	97	37.27	67	36.655	211	57.19	26
19	56.526	92	45.63	60	3.979	229	95.22	$\overline{15}$	31.151	97	37.94	58	36.444	219	57.45	$\overline{18}$
29	56.434	88	46.23	57	3.750	215	95.07	60	31.054	94	38.52	48	36.225	221	57.27	60
Juli 9	56.346	80	46.80	52	3.535	197	94.47	104	30.960	89	39.00	36	36.004	214	56.67	100
19	56.266	70	47.32	44	3.338	172	93.43	145	30.871	80	39.36	23	35.790	202	55.67	138
29	56.196	57	47.76	35	3.166	142	91.98	185	30.791	68	39.59	7	35.588	182	54.29	171
Aug. 8	56.139	38	48.11	23	3.024	108	90.13	220	30.723	52	39.66	$\overline{9}$	35.406	153	52.58	198
18	56.101	17	48.34	8	2.916	69	87.93	252	30.671	32	39.57	27	35.253	116	50.60	219
28	56.084	$\overline{9}$	48.42	$\overline{8}$	2.847	24	85.41	279	30.639	7	39.30	48	35.137	70	48.41	232
Sept. 7	56.093	38	48.34	29	2.823	$\overline{25}$	82.62	303	30.632	$\overline{22}$	38.82	69	35.067	19	46.09	235
17	56.131	73	48.05	51	2.848	79	79.59	320	30.654	55	38.13	93	35.048	$\overline{40}$	43.74	229
27	56.204	110	47.54	76	2.927	136	76.39	332	30.709	93	37.20	116	35.088	104	41.45	213
Okt. 7	56.314	150	46.78	102	3.063	195	73.07	338	30.802	133	36.04	140	35.192	171	39.32	187
17	56.464	190	45.76	128	3.258	256	69.69	336	30.935	175	34.64	164	35.363	236	37.45	152
27	56.654	230	44.48	154	3.514	316	66.33	327	31.110	216	33.00	185	35.599	298	35.93	110
Nov. 6	56.884	266	42.94	176	3.830	372	63.06	309	31.326	255	31.15	204	35.897	355	34.83	60
16	57.150	298	41.18	196	4.202	422	59.97	283	31.581	290	29.11	217	36.252	401	34.23	7
26	57.448	323	39.22	212	4.624	461	57.14	250	31.871	316	26.94	225	36.653	436	34.16	$\overline{49}$
Dez. 6	57.771	337	37.10	220	5.085	490	54.64	207	32.187	335	24.69	227	37.089	457	34.65	103
16	58.108	342	34.90	221	5.575	504	52.57	159	32.522	343	22.42	222	37.546	464	35.68	156
26	58.450	337	32.69	217	6.079	503	50.98	106	32.865	341	20.20	210	38.010	455	37.24	205
36	58.787		30.52		6.582		49.92		33.206		18.10		38.465		39.29	
Mittl. Ort	56.010		48.45		3.092		82.04		30.540		38.43		36.114		38.05	
sec δ, tg δ	1.001		+0.036		1.701		+1.376		1.013		+0.159		1.570		−1.210	
a, *a′*	+3.1		−20.0		+3.1		−20.0		+3.1		−20.0		+3.1		−20.0	
b, *b′*	0.00		− 0.05		−0.09		− 0.04		−0.01		+ 0.01		+0.08		+ 0.02	

[1] Die jährliche Parallaxe (0.″101) ist bereits berücksichtigt.

*) Bei Stern 450) und 452) lies März 22.

Tag		453) ε Corvi AR.		453) ε Corvi Dekl.		454) Br 1634 Caml AR.		454) Br 1634 Caml Dekl.		456) δ Ursae maj. AR.		456) δ Ursae maj. Dekl.		459) β Chamael. AR.		459) β Chamael. Dekl.	
1947		12h 7m		−22° 19′		12h 9m		+77° 54′		12h 12m		+57° 19′		12h 15m		−79° 0′	
Jan.	1	22.818	342	17.59	235	45.09	120	24.25	25	48.283	530	25.15	86	10.28	121	39.04	173
	11	23.160	321	19.94	246	46.29	114	24.00	41	48.813	508	24.29	25	11.49	113	40.77	227
	21	23.481	291	22.40	249	47.43	106	24.41	104	49.321	470	24.04	34	12.62	101	43.04	275
	31	23.772	255	24.89	247	48.49	94	25.45	162	49.791	417	24.38	92	13.63	88	45.79	316
Febr.	10	24.027	213	27.36	237	49.43	79	27.07	212	50.208	354	25.30	144	14.51	72	48.95	346
	20	24.240	170	29.73	223	50.22	61	29.19	254	50.562	282	26.74	189	15.23	55	52.41	369
März	2	24.410	127	31.96	205	50.83	41	31.73	283	50.844	204	28.63	224	15.78	38	56.10	383
	12	24.537	85	34.01	185	51.24	22	34.56	301	51.048	126	30.87	249	16.16	21	59.93	387
	22	24.622	47	35.86	161	51.46	2	37.57	306	51.174	50	33.36	262	16.37	3	63.80	384
	31	[25] 24.669	13	37.47	138	[25] 51.48	18	40.63	299	[26] 51.224	21	35.98	266	[27] 16.40	14	67.64	371
April	10	24.682	17	38.85	113	51.30	34	43.62	280	51.203	83	38.64	257	16.26	29	71.35	352
	20	24.665	42	39.98	88	50.96	50	46.42	251	51.120	138	41.21	239	15.97	45	74.87	326
	30	24.623	63	40.86	64	50.46	62	48.93	213	50.982	184	43.60	213	15.52	58	78.13	293
Mai	10	24.560	81	41.50	39	49.84	73	51.06	168	50.798	218	45.73	179	14.94	70	81.06	254
	20	24.479	93	41.89	15	49.11	80	52.74	118	50.580	244	47.52	139	14.24	81	83.60	210
	30	24.386	104	42.04	9	48.31	85	53.92	65	50.336	261	48.91	96	13.43	89	85.70	161
Juni	9	24.282	110	41.95	31	47.46	87	54.57	9	50.075	267	49.87	49	12.54	95	87.31	108
	19	24.172	114	41.64	52	46.59	86	54.66	47	49.808	267	50.36	2	11.59	99	88.39	55
	29	24.058	114	41.12	73	45.73	83	54.19	100	49.541	259	50.38	46	10.60	100	88.94	1
Juli	9	23.944	110	40.39	90	44.90	78	53.19	152	49.282	243	49.92	92	9.60	99	88.93	56
	19	23.834	103	39.49	105	44.12	71	51.67	202	49.039	222	49.00	138	8.61	94	88.37	109
	29	23.731	91	38.44	115	43.41	63	49.65	245	48.817	194	47.62	180	7.67	86	87.28	159
Aug.	8	23.640	74	37.29	123	42.78	52	47.20	284	48.623	160	45.82	220	6.81	75	85.69	204
	18	23.566	52	36.06	124	42.26	40	44.36	319	48.463	119	43.62	254	6.06	62	83.65	242
	28	23.514	24	34.82	120	41.86	28	41.17	345	48.344	74	41.08	286	5.44	45	81.23	272
Sept.	7	23.490	10	33.62	110	41.58	14	37.72	367	48.270	21	38.22	311	4.99	27	78.51	291
	17	23.500	47	32.52	94	41.44	1	34.05	380	48.249	35	35.11	332	4.72	6	75.60	299
	27	23.547	90	31.58	71	41.45	17	30.25	387	48.284	98	31.79	346	4.66	15	72.61	297
Okt.	7	23.637	135	30.87	44	41.62	32	26.38	384	48.382	163	28.33	354	4.81	37	69.64	282
	17	23.772	181	30.43	10	41.94	49	22.54	374	48.545	231	24.79	354	5.18	58	66.82	255
	27	23.953	226	30.33	26	42.43	64	18.80	354	48.776	298	21.25	346	5.76	78	64.27	217
Nov.	6	24.179	268	30.59	65	43.07	79	15.26	326	49.074	362	17.79	329	6.54	95	62.10	169
	16	24.447	304	31.24	104	43.86	93	12.00	289	49.436	420	14.50	305	7.49	109	60.41	114
	26	24.751	332	32.28	141	44.79	104	9.11	243	49.856	470	11.45	270	8.58	119	59.27	54
Dez.	6	25.083	350	33.69	175	45.83	112	6.68	190	50.326	507	8.75	229	9.77	126	58.73	10
	16	25.433	357	35.44	203	46.95	118	4.78	131	50.833	530	6.46	179	11.03	127	58.83	75
	26	25.790	353	37.47	226	48.13	121	3.47	67	51.363	536	4.67	124	12.30	126	59.58	137
	36	26.143		39.73		49.34		2.80		51.899		3.43		13.56		60.95	
Mittl. Ort		23.666		30.12		44.37		38.27		48.665		36.94		11.62		64.77	
sec δ, tg δ		1.081		−0.411		4.775		+4.669		1.852		+1.559		5.249		−5.153	
a, *a′*		+3.1		−20.0		+2.8		−20.0		+3.0		−20.0		+3.5		−20.0	
b, *b′*		+0.03		+ 0.03		−0.31		+ 0.04		−0.10		+ 0.06		+0.34		+ 0.07	

Scheinbare Sternörter 1947

Tag	460) η Virginis AR.		460) η Virginis Dekl.		462) α Crucis *m* AR.		462) α Crucis *m* Dekl.	
1947	12h 17m		−0° 22′		12h 23m		−62° 47′	
	s		"		s		"	
Jan. 1	10.711	331	15.91	215	37.13	58	57.19	192
11	11.042	314	18.06	202	37.71	54	59.11	240
21	11.356	288	20.08	184	38.25	50	61.51	281
31	11.644	255	21.92	162	38.75	44	64.32	313
Febr. 10	11.899	218	23.54	136	39.19	36	67.45	336
20	12.117	177	24.90	108	39.55	29	70.81	350
März 2	12.294	135	25.98	81	39.84	22	74.31	358
12	12.429	96	26.79	54	40.06	15	77.89	357
22	12.525	59	27.33	30	40.21	7	81.46	347
31	[27] 12.584	25	27.63	8	[29] 40.28	0	84.93	332
April 10	12.609	3	27.71	11	40.28	6	88.25	310
20	12.606	27	27.60	26	40.22	13	91.35	282
30	12.579	48	27.34	39	40.09	18	94.17	250
Mai 10	12.531	64	26.95	48	39.91	22	96.67	211
20	12.467	76	26.47	54	39.69	26	98.78	170
30	12.391	86	25.93	58	39.43	30	100.48	125
Juni 9	12.305	92	25.35	61	39.13	33	101.73	77
19	12.213	95	24.74	61	38.80	34	102.50	28
29	12.118	96	24.13	59	38.46	35	102.78	21
Juli 9	12.022	93	23.54	56	38.11	35	102.57	70
19	11.929	87	22.98	51	37.76	33	101.87	116
29	11.842	77	22.47	42	37.43	32	100.71	158
Aug. 8	11.765	64	22.05	33	37.11	27	99.13	196
18	11.701	45	21.72	20	36.84	22	97.17	227
28	11.656	21	21.52	4	36.62	16	94.90	251
Sept. 7	11.635	7	21.48	15	36.46	9	92.39	263
17	11.642	40	21.63	36	36.37	0	89.76	267
27	11.682	78	21.99	60	36.37	8	87.09	260
Okt. 7	11.760	119	22.59	86	36.45	18	84.49	242
17	11.879	162	23.45	112	36.63	27	82.07	212
27	12.041	203	24.57	139	36.90	35	79.95	173
Nov. 6	12.244	244	25.96	164	37.25	44	78.22	125
16	12.488	280	27.60	187	37.69	50	76.97	72
26	12.768	309	29.47	204	38.19	56	76.25	14
Dez. 6	13.077	329	31.51	216	38.75	59	76.11	46
16	13.406	340	33.67	222	39.34	60	76.57	105
26	13.746	339	35.89	221	39.94	60	77.62	162
36	14.085		38.10		40.54		79.24	
Mittl. Ort	11.553		20.64		38.34		80.59	
sec δ, tg δ	1.000		−0.007		2.188		−1.946	
a, *a*′	+3.1		−20.0		+3.3		−19.9	
b, *b*′	0.00		+ 0.07		+0.13		+ 0.10	

Tag	466) 20 Comae AR.		466) 20 Comae Dekl.		465) δ Corvi AR.		465) δ Corvi Dekl.	
1947	12h 27m		+21° 10′		12h 27m		−16° 13′	
	s		"		s		"	
Jan. 1	2.724	352	79.01	185	6.108	340	3.83	225
11	3.076	337	77.16	151	6.448	323	6.08	231
21	3.413	312	75.65	112	6.771	298	8.39	228
31	3.725	280	74.53	72	7.069	265	10.67	221
Febr. 10	4.005	241	73.81	31	7.334	227	12.88	209
20	4.246	199	73.50	8	7.561	187	14.97	191
März 2	4.445	155	73.58	43	7.748	147	16.88	171
12	4.600	111	74.01	74	7.895	106	18.59	149
22	4.711	69	74.75	99	8.001	69	20.08	127
31	[30] 4.780	31	75.74	117	[30] 8.070	36	21.35	103
April 10	4.811	1	76.91	129	8.106	5	22.38	81
20	4.810	30	78.20	133	8.111	20	23.19	60
30	4.780	54	79.53	132	8.091	42	23.79	38
Mai 10	4.726	73	80.85	125	8.049	61	24.17	19
20	4.653	88	82.10	114	7.988	76	24.36	1
30	4.565	99	83.24	99	7.912	88	24.37	17
Juni 9	4.466	105	84.23	80	7.824	98	24.20	34
19	4.361	109	85.03	60	7.726	103	23.86	49
29	4.252	111	85.63	38	7.623	107	23.37	63
Juli 9	4.141	107	86.01	14	7.516	106	22.74	74
19	4.034	101	86.15	10	7.410	103	22.00	83
29	3.933	91	86.05	36	7.307	94	21.17	90
Aug. 8	3.842	76	85.69	61	7.213	80	20.27	92
18	3.766	58	85.08	87	7.133	62	19.35	91
28	3.708	34	84.21	113	7.071	38	18.44	85
Sept. 7	3.674	5	83.08	138	7.033	7	17.59	74
17	3.669	29	81.70	164	7.026	28	16.85	57
27	3.698	68	80.06	187	7.054	69	16.28	36
Okt. 7	3.766	110	78.19	209	7.123	112	15.92	10
17	3.876	154	76.10	228	7.235	158	15.82	20
27	4.030	198	73.82	244	7.393	203	16.02	53
Nov. 6	4.228	242	71.38	254	7.596	246	16.55	87
16	4.470	282	68.84	259	7.842	284	17.42	121
26	4.752	314	66.25	256	8.126	315	18.63	152
Dez. 6	5.066	339	63.69	247	8.441	336	20.15	181
16	5.405	353	61.22	230	8.777	348	21.96	203
26	5.758	357	58.92	205	9.125	348	23.99	219
36	6.115		56.87		9.473		26.18	
Mittl. Ort	3.532		81.84		7.071		14.04	
sec δ, tg δ	1.073		+0.388		1.041		−0.291	
a, *a*′	+3.0		−19.9		+3.1		−19.9	
b, *b*′	−0.03		+ 0.12		+0.02		+ 0.12	

Tag	470) β Canum ven.[1] AR.		Dekl.		472) ϰ Draconis AR.		Dekl.	
	AR.	Diff.	Dekl.	Diff.	AR.	Diff.	Dekl.	Diff.
1947	12h 31m		+41° 38′		12h 31m		+70° 4′	
Jan. 1	13.048	411	33.97	144	13.64	78	34.62	75
11	13.459	397	32.53	93	14.42	75	33.87	11
21	13.856	370	31.60	39	15.17	71	33.76	53
31	14.226	334	31.21	15	15.88	64	34.29	115
Febr. 10	14.560	288	31.36	65	16.52	55	35.44	171
20	14.848	236	32.01	112	17.07	45	37.15	217
März 2	15.084	182	33.13	151	17.52	34	39.32	255
12	15.266	126	34.64	183	17.86	21	41.87	281
22	15.392	73	36.47	205	18.07	9	44.68	294
31	31 15.465	23	38.52	216	31 18.16	2	47.62	297
April 10	15.488	21	40.68	220	18.14	13	50.59	286
20	15.467	60	42.88	214	18.01	23	53.45	265
30	15.407	93	45.02	199	17.78	31	56.10	235
Mai 10	15.314	120	47.01	177	17.47	38	58.45	196
20	15.194	139	48.78	151	17.09	44	60.41	153
30	15.055	153	50.29	118	16.65	46	61.94	104
Juni 9	14.902	163	51.47	83	16.19	49	62.98	52
19	14.739	167	52.30	45	15.70	50	63.50	2
29	14.572	166	52.75	6	15.20	49	63.48	54
Juli 9	14.406	161	52.81	33	14.71	47	62.94	107
19	14.245	150	52.48	72	14.24	44	61.87	157
29	14.095	137	51.76	110	13.80	40	60.30	203
Aug. 8	13.958	117	50.66	147	13.40	34	58.27	245
18	13.841	92	49.19	182	13.06	29	55.82	284
28	13.749	61	47.37	213	12.77	21	52.98	317
Sept. 7	13.688	26	45.24	243	12.56	13	49.81	344
17	13.662	16	42.81	267	12.43	4	46.37	363
27	13.678	61	40.14	289	12.39	6	42.74	377
Okt. 7	13.739	111	37.25	305	12.45	16	38.97	384
17	13.850	163	34.20	316	12.61	25	35.13	380
27	14.013	216	31.04	319	12.86	37	31.33	369
Nov. 6	14.229	268	27.85	316	13.23	47	27.64	348
16	14.497	315	24.69	305	13.70	56	24.16	319
26	14.812	356	21.64	284	14.26	64	20.97	280
Dez. 6	15.168	387	18.80	256	14.90	70	18.17	232
16	15.555	407	16.24	220	15.60	75	15.85	178
26	15.962	415	14.04	175	16.35	78	14.07	117
36	16.377		12.29		17.13		12.90	
Mittl. Ort	13.746		42.82		13.86		48.50	
sec δ, tg δ	1.338		+0.889		2.935		+2.759	
a, *a′*	+2.9		−19.9		+2.6		−19.9	
b, *b′*	−0.06		+ 0.14		−0.18		+ 0.14	

Tag	471) β Corvi AR.		Dekl.		473) 24 Comae *sq* AR.		Dekl.	
	AR.	Diff.	Dekl.	Diff.	AR.	Diff.	Dekl.	Diff.
1947	12h 31m		−23° 6′		12h 32m		+18° 39′	
Jan. 1	34.870	350	1.37	223	27.432	348	64.80	192
11	35.220	334	3.60	236	27.780	334	62.88	160
21	35.554	309	5.96	242	28.114	311	61.28	124
31	35.863	275	8.38	241	28.425	280	60.04	85
Febr. 10	36.138	236	10.79	234	28.705	242	59.19	46
20	36.374	196	13.13	223	28.947	201	58.73	7
März 2	36.570	154	15.36	206	29.148	158	58.66	28
12	36.724	114	17.42	187	29.306	115	58.94	59
22	36.838	75	19.29	167	29.421	75	59.53	85
31	31 36.913	40	20.96	144	31 29.496	38	60.38	104
April 10	36.953	9	22.40	121	29.534	5	61.42	117
20	36.962	18	23.61	97	29.539	23	62.59	123
30	36.944	42	24.58	74	29.516	47	63.82	124
Mai 10	36.902	63	25.32	51	29.469	67	65.06	120
20	36.839	79	25.83	27	29.402	81	66.26	111
30	36.760	93	26.10	5	29.321	93	67.37	97
Juni 9	36.667	104	26.15	18	29.228	101	68.34	82
19	36.563	111	25.97	38	29.127	106	69.16	64
29	36.452	117	25.59	59	29.021	108	69.80	43
Juli 9	36.335	117	25.00	77	28.913	106	70.23	22
19	36.218	114	24.23	92	28.807	101	70.45	1
29	36.104	105	23.31	105	28.706	92	70.44	24
Aug. 8	35.999	92	22.26	114	28.614	79	70.20	49
18	35.907	72	21.12	118	28.535	61	69.71	73
28	35.835	47	19.94	116	28.474	38	68.98	98
Sept. 7	35.788	15	18.78	109	28.436	9	68.00	124
17	35.773	22	17.69	96	28.427	23	66.76	148
27	35.795	65	16.73	77	28.450	61	65.28	173
Okt. 7	35.860	111	15.96	51	28.511	104	63.55	196
17	35.971	158	15.45	21	28.615	147	61.59	216
27	36.129	206	15.24	13	28.762	192	59.43	233
Nov. 6	36.335	252	15.37	51	28.954	236	57.10	246
16	36.587	291	15.88	88	29.190	275	54.64	253
26	36.878	323	16.76	125	29.465	308	52.11	253
Dez. 6	37.201	346	18.01	159	29.773	333	49.58	246
16	37.547	359	19.60	189	30.106	348	47.12	232
26	37.906	359	21.49	213	30.454	353	44.80	211
36	38.265		23.62		30.807		42.69	
Mittl. Ort	35.893		13.88		28.283		66.89	
sec δ, tg δ	1.087		−0.427		1.056		+0.338	
a, *a′*	+3.2		−19.9		+3.0		−19.8	
b, *b′*	+0.03		+ 0.14		−0.02		+ 0.14	

[1]) Die jährliche Parallaxe (0″.108) ist bereits berücksichtigt.

Scheinbare Sternörter 1947

Tag	474) α Muscae AR.		474) α Muscae Dekl.		1325) 133 G. Centauri AR.		1325) 133 G. Centauri Dekl.	
1947	12h 33m		−68° 50′		12h 38m		−45° 51′	
	s		"		s		"	
Jan. 1	58.47	71	12.88	168	26.390	427	1.28	201
11	59.18	68	14.56	221	26.817	407	3.29	236
21	59.86	62	16.77	265	27.224	376	5.65	264
31	60.48	55	19.42	302	27.600	337	8.29	286
Febr. 10	61.03	47	22.44	332	27.937	290	11.15	299
20	61.50	38	25.76	352	28.227	240	14.14	304
März 2	61.88	28	29.28	364	28.467	190	17.18	303
12	62.16	20	32.92	368	28.657	139	20.21	296
22	62.36	11	36.60	363	28.796	91	23.17	283
31*)	62.47	1	40.23	352	28.887	45	26.00	265
April 10	62.48	7	43.75	333	28.932	3	28.65	242
20	62.41	14	47.08	308	28.935	35	31.07	217
30	62.27	22	50.16	278	28.900	69	33.24	188
Mai 10	62.05	28	52.94	241	28.831	99	35.12	155
20	61.77	34	55.35	199	28.732	126	36.67	121
30	61.43	39	57.34	154	28.606	149	37.88	84
Juni 9	61.04	43	58.88	106	28.457	167	38.72	45
19	60.61	46	59.94	55	28.290	181	39.17	7
29	60.15	47	60.49	3	28.109	190	39.24	31
Juli 9	59.68	47	60.52	48	27.919	193	38.93	69
19	59.21	46	60.04	98	27.726	189	38.24	105
29	58.75	43	59.06	146	27.537	178	37.19	137
Aug. 8	58.32	39	57.60	187	27.359	159	35.82	164
18	57.93	32	55.73	224	27.200	131	34.18	186
28	57.61	24	53.49	252	27.069	96	32.32	200
Sept. 7	57.37	15	50.97	270	26.973	52	30.32	208
17	57.22	5	48.27	280	26.921	1	28.24	206
27	57.17	6	45.47	277	26.920	57	26.18	196
Okt. 7	57.23	18	42.70	263	26.977	118	24.22	175
17	57.41	30	40.07	238	27.095	182	22.47	146
27	57.71	41	37.69	202	27.277	244	21.01	110
Nov. 6	58.12	51	35.67	157	27.521	302	19.91	66
16	58.63	60	34.10	104	27.823	352	19.25	19
26	59.23	67	33.06	47	28.175	392	19.06	32
Dez. 6	59.90	71	32.59	14	28.567	421	19.38	83
16	60.61	73	32.73	75	28.988	437	20.21	131
26	61.34	73	33.48	135	29.425	437	21.52	177
36	62.07		34.83		29.862		23.29	
Mittl. Ort	59.99		37.17		27.613		20.64	
sec δ, tg δ	2.771		−2.584		1.436		−1.030	
a, *a′*	+3.6		−19.8		+3.3		−19.8	
b, *b′*	+0.17		+ 0.15		+0.07		+ 0.17	

Tag	478) 76 Ursae maj. AR.		478) 76 Ursae maj. Dekl.		481) β Crucis AR.		481) β Crucis Dekl.	
1947	12h 39m		+62° 59′		12h 44m		−59° 23′	
	s		"		s		"	
Jan. 1	14.87	61	60.18	105	35.047	546	34.86	173
11	15.48	59	59.13	42	35.593	521	36.59	219
21	16.07	56	58.71	22	36.114	483	38.78	259
31	16.63	51	58.93	84	36.597	434	41.37	292
Febr. 10	17.14	45	59.77	140	37.031	376	44.29	316
20	17.59	36	61.17	190	37.407	312	47.45	332
März 2	17.95	29	63.07	230	37.719	247	50.77	341
12	18.24	19	65.37	260	37.966	180	54.18	341
22	18.43	10	67.97	278	38.146	115	57.59	335
31*)	18.53	1	70.75	284	38.261	53	60.94	322
April 10	18.54	6	73.59	279	38.314	6	64.16	303
20	18.48	14	76.38	264	38.308	60	67.19	279
30	18.34	20	79.02	239	38.248	111	69.98	249
Mai 10	18.14	25	81.41	206	38.137	157	72.47	215
20	17.89	29	83.47	165	37.980	198	74.62	177
30	17.60	32	85.12	121	37.782	233	76.39	135
Juni 9	17.28	34	86.33	73	37.549	263	77.74	91
19	16.94	34	87.06	22	37.286	284	78.65	45
29	16.60	35	87.28	29	37.002	299	79.10	2
Juli 9	16.25	34	86.99	79	36.703	304	79.08	49
19	15.91	31	86.20	128	36.399	300	78.59	93
29	15.60	29	84.92	175	36.099	284	77.66	136
Aug. 8	15.31	25	83.17	218	35.815	258	76.30	174
18	15.06	21	80.99	257	35.557	218	74.56	206
28	14.85	16	78.42	292	35.339	168	72.50	230
Sept. 7	14.69	10	75.50	321	35.171	106	70.20	246
17	14.59	4	72.29	345	35.065	35	67.74	252
27	14.55	4	68.84	362	35.030	45	65.22	249
Okt. 7	14.59	12	65.22	372	35.075	129	62.73	234
17	14.71	19	61.50	374	35.204	214	60.39	209
27	14.90	28	57.76	368	35.418	297	58.30	174
Nov. 6	15.18	36	54.08	353	35.715	374	56.56	131
16	15.54	43	50.55	329	36.089	442	55.25	81
26	15.97	50	47.26	294	36.531	496	54.44	26
Dez. 6	16.47	55	44.32	252	37.027	534	54.18	31
16	17.02	58	41.80	202	37.561	554	54.49	87
26	17.60	61	39.78	144	38.115	558	55.36	142
36	18.21		38.34		38.673		56.78	
Mittl. Ort	15.38		73.34		36.526		57.29	
sec δ, tg δ	2.203		+1.963		1.964		−1.691	
a, *a′*	+2.6		−19.7		+3.5		−19.7	
b, *b′*	−0.13		+ 0.17		+0.11		+ 0.19	

*) Bei Stern 1325), 478) und 481) lies April 1.

Tag	482) 150 G. Centauri AR.		Dekl.		483) ε Ursae maj. AR.		Dekl.		484) δ Virginis AR.		Dekl.		486) 8 Draconis AR.		Dekl.	
1947	$12^h\ 50^m$		$-39°\ 53'$		$12^h\ 51^m$		$+56°\ 14'$		$12^h\ 52^m$		$+3°\ 40'$		$12^h\ 53^m$		$+65°\ 42'$	
	s		″		s		″		s		″		s		″	
Jan. 1	28.265	403	9.95	196	41.460	515	37.64	137	54.884	335	69.01	213	21.68	65	78.45	117
11	28.668	387	11.91	228	41.975	507	36.27	76	55.219	325	66.88	198	22.33	65	77.28	52
21	29.055	360	14.19	251	42.482	482	35.51	14	55.544	306	64.90	177	22.98	62	76.76	—12
31	29.415	326	16.70	268	42.964	443	35.37	—47	55.850	278	63.13	150	23.60	57	76.88	75
Febr. 10	29.741	285	19.38	277	43.407	391	35.84	105	56.128	245	61.63	121	24.17	51	77.63	135
20	30.026	242	22.15	280	43.798	328	36.89	157	56.373	208	60.42	90	24.68	42	78.98	187
März 2	30.268	195	24.95	277	44.126	259	38.46	200	56.581	170	59.52	60	25.10	33	80.85	229
12	30.463	149	27.72	267	44.385	188	40.46	234	56.751	131	58.92	31	25.43	23	83.14	262
22	30.612	105	30.39	254	44.573	115	42.80	257	56.882	94	58.61	4	25.66	14	85.76	282
April 1	30.717	64	32.93	236	44.688	45	45.37	269	56.976	60	58.57	—18	25.80	4	88.58	292
10	30.781	25	35.29	215	44.733	—20	48.06	270	57.036	30	58.75	37	25.84	—5	91.50	289
20	30.806	—9	37.44	191	44.713	78	50.76	259	57.066	2	59.12	51	25.79	14	94.39	275
30	30.797	41	39.35	164	44.635	129	53.35	241	57.068	—21	59.63	61	25.65	20	97.14	251
Mai 10	30.756	69	40.99	136	44.506	172	55.76	213	57.047	41	60.24	68	25.45	27	99.65	218
20	30.687	95	42.35	104	44.334	207	57.89	178	57.006	59	60.92	71	25.18	32	101.83	179
30	30.592	117	43.39	72	44.127	233	59.67	139	56.947	73	61.63	72	24.86	35	103.62	135
Juni 9	30.475	135	44.11	39	43.894	251	61.06	94	56.874	84	62.35	69	24.51	38	104.97	86
19	30.340	149	44.50	5	43.643	263	62.00	48	56.790	93	63.04	65	24.13	40	105.83	35
29	30.191	160	44.55	—29	43.380	266	62.48	0	56.697	99	63.69	58	23.73	40	106.18	—18
Juli 9	30.031	165	44.26	62	43.114	262	62.48	49	56.598	102	64.27	50	23.33	39	106.00	69
19	29.866	165	43.64	92	42.852	252	61.99	96	56.496	102	64.77	40	22.94	38	105.31	120
29	29.701	158	42.72	120	42.600	234	61.03	141	56.394	97	65.17	29	22.56	35	104.11	167
Aug. 8	29.543	144	41.52	144	42.366	210	59.62	185	56.297	87	65.46	15	22.21	31	102.44	214
18	29.399	121	40.08	162	42.156	178	57.77	226	56.210	74	65.61	—1	21.90	27	100.30	254
28	29.278	92	38.46	175	41.978	139	55.51	261	56.136	53	65.60	19	21.63	22	97.76	291
Sept. 7	29.186	54	36.71	181	41.839	94	52.90	294	56.083	28	65.41	38	21.41	15	94.85	322
17	29.132	8	34.90	177	41.745	40	49.96	321	56.055	—4	65.03	61	21.26	8	91.63	347
27	29.124	—43	33.13	166	41.705	—19	46.75	342	56.059	41	64.42	84	21.18	0	88.16	367
Okt. 7	29.167	99	31.47	148	41.724	83	43.33	356	56.100	81	63.58	108	21.18	8	84.49	378
17	29.266	157	29.99	120	41.807	151	39.77	364	56.181	126	62.50	134	21.26	17	80.71	383
27	29.423	215	28.79	85	41.958	221	36.13	364	56.307	171	61.16	159	21.43	26	76.88	377
Nov. 6	29.638	270	27.94	46	42.179	290	32.49	355	56.478	214	59.57	181	21.69	35	73.11	363
16	29.908	319	27.48	1	42.469	355	28.94	336	56.692	254	57.76	200	22.04	44	69.48	340
26	30.227	359	27.47	—45	42.824	413	25.58	308	56.946	289	55.76	215	22.48	51	66.08	306
Dez. 6	30.586	389	27.92	91	43.237	459	22.50	272	57.235	315	53.61	224	22.99	57	63.02	265
16	30.975	406	28.83	136	43.696	494	19.78	226	57.550	333	51.37	227	23.56	62	60.37	214
26	31.381	410	30.19	175	44.190	513	17.52	174	57.883	339	49.10	221	24.18	65	58.23	157
36	31.791		31.94		44.703		15.78		58.222		46.89		24.83		56.66	
Mittl. Ort	29.548		27.42		42.178		49.90		55.919		66.29		22.28		92.16	
sec δ, tg δ	1.303		−0.836		1.800		+1.496		1.002		+0.064		2.432		+2.217	
a, *a′*	+3.3		−19.6		+2.6		−19.5		+3.1		−19.5		+2.4		−19.5	
b, *b′*	+0.05		+ 0.22		−0.10		+ 0.22		0.00		+ 0.23		−0.14		+ 0.23	

Scheinbare Sternörter 1947

Tag	485) α Can. ven. sq				488) ε Virginis				490) ϑ Virginis				492) β Comae[1])			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$12^h\ 53^m$		$+38°\ 35'$		$12^h\ 59^m$		$+11°\ 14'$		$13^h\ 7^m$		$-5°\ 15'$		$13^h\ 9^m$		$+28°\ 8'$	
	s		″				″		s		″		s		″	
Jan. 1	32.194	398	66.69	174	31.216	339	36.97	210	10.989	337	17.75	215	23.041	363	40.96	198
11	32.592	389	64.95	124	31.555	331	34.87	187	11.326	329	19.90	208	23.404	357	38.98	157
21	32.981	370	63.71	72	31.886	313	33.00	158	11.655	312	21.98	197	23.761	341	37.41	112
31	33.351	338	62.99	18	32.199	287	31.42	124	11.967	286	23.95	180	24.102	314	36.29	65
Febr. 10	33.689	298	62.81	34	32.486	254	30.18	89	12.253	255	25.75	158	24.416	281	35.64	17
20	33.987	253	63.15	83	32.740	217	29.29	53	12.508	220	27.33	134	24.697	242	35.47	29
März 2	34.240	203	63.98	125	32.957	178	28.76	19	12.728	183	28.67	109	24.939	199	35.76	72
12	34.443	152	65.23	161	33.135	139	28.57	13	12.911	146	29.76	83	25.138	156	36.48	108
22	34.595	102	66.84	188	33.274	102	28.70	41	13.057	110	30.59	58	25.294	112	37.56	137
April 1	34.697	54	68.72	205	33.376	66	29.11	64	13.167	77	31.17	35	25.406	72	38.93	160
	5				7				9				9			
10	34.751	11	70.77	214	33.442	34	29.75	80	13.244	46	31.52	15	25.478	34	40.53	173
20	34.762	27	72.91	212	33.476	6	30.55	93	13.290	19	31.67	2	25.512	0	42.26	180
30	34.735	62	75.03	204	33.482	19	31.48	100	13.309	6	31.65	17	25.512	30	44.06	178
Mai 10	34.673	90	77.07	187	33.463	41	32.48	101	13.303	27	31.48	29	25.482	56	45.84	169
20	34.583	113	78.94	164	33.422	59	33.49	99	13.276	46	31.19	38	25.426	78	47.53	155
30	34.470	131	80.58	136	33.363	74	34.48	93	13.230	63	30.81	46	25.348	97	49.08	136
Juni 9	34.339	144	81.94	103	33.289	87	35.41	84	13.167	78	30.35	51	25.251	111	50.44	112
19	34.195	154	82.97	69	33.202	96	36.25	72	13.089	89	29.84	54	25.140	122	51.56	85
29	34.041	158	83.66	31	33.106	103	36.97	58	13.000	98	29.30	57	25.018	129	52.41	55
Juli 9	33.883	157	83.97	7	33.003	106	37.55	43	12.902	103	28.73	56	24.889	134	52.96	26
19	33.726	154	83.90	45	32.897	107	37.98	25	12.799	106	28.17	55	24.755	133	53.22	7
29	33.572	144	83.45	83	32.790	102	38.23	8	12.693	103	27.62	51	24.622	128	53.15	39
Aug. 8	33.428	130	82.62	121	32.688	93	38.31	13	12.590	97	27.11	45	24.494	119	52.76	71
18	33.298	109	81.41	156	32.595	80	38.18	34	12.493	84	26.66	37	24.375	104	52.05	103
28	33.189	84	79.85	189	32.515	60	37.84	56	12.409	65	26.29	24	24.271	83	51.02	134
Sept. 7	33.105	51	77.96	221	32.455	35	37.28	79	12.344	41	26.05	10	24.188	56	49.68	164
17	33.054	14	75.75	250	32.420	4	36.49	104	12.303	9	25.95	8	24.132	23	48.04	193
27	33.040	30	73.25	274	32.416	33	35.45	128	12.294	28	26.03	29	24.109	16	46.11	220
Okt. 7	33.070	78	70.51	294	32.449	74	34.17	153	12.322	70	26.32	53	24.125	60	43.91	243
17	33.148	130	67.57	309	32.523	119	32.64	177	12.392	115	26.85	80	24.185	107	41.48	263
27	33.278	182	64.48	318	32.642	164	30.87	198	12.507	160	27.65	106	24.292	156	38.85	278
Nov. 6	33.460	235	61.30	319	32.806	208	28.89	217	12.667	206	28.71	133	24.448	205	36.07	287
16	33.695	284	58.11	313	33.014	250	26.72	232	12.873	248	30.04	158	24.653	252	33.20	290
26	33.979	327	54.98	298	33.264	286	24.40	239	13.121	284	31.62	181	24.905	292	30.30	285
Dez. 6	34.306	362	52.00	275	33.550	314	22.01	242	13.405	313	33.43	198	25.197	325	27.45	272
16	34.668	385	49.25	243	33.864	333	19.59	236	13.718	331	35.41	210	25.522	350	24.73	250
26	35.053	398	46.82	203	34.197	342	17.23	223	14.049	340	37.51	215	25.872	362	22.23	221
36	35.451		44.79		34.539		15.00		14.389		39.66		26.234		20.02	
Mittl. Ort	33.063		75.07		32.254		37.00		12.153		23.38		24.051		46.65	
sec δ, tg δ	1.280		+0.798		1.020		+0.199		1.004		−0.092		1.134		+0.535	
a, *a′*	+2.8		−19.5		+3.0		−19.4		+3.1		−19.2		+2.9		−19.1	
b, *b′*	−0.05		+ 0.23		−0.01		+ 0.26		+0.01		+ 0.29		−0.03		+ 0.30	

[1]) Die jährliche Parallaxe (0.″121) ist bereits berücksichtigt.

Tag	495) γ Hydrae				496) ι Centauri				497) ζ Ursae maj. *pr*				498) α Virginis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$13^h\ 16^m$		$-22°\ 53'$		$13^h\ 17^m$		$-36°\ 25'$		$13^h\ 21^m$		$+55°\ 11'$		$13^h\ 22^m$		$-10°\ 52'$	
	s		"		s		"		s		"		s		"	
Jan. 1	0.767	357	21.41	198	35.076	393	43.99	177	46.698	495	53.57	174	22.537	340	59.74	208
11	1.124	349	23.39	212	35.469	384	45.76	206	47.193	497	51.83	115	22.877	335	61.82	208
21	1.473	332	25.51	220	35.853	365	47.82	227	47.690	482	50.68	52	23.212	320	63.90	204
31	1.805	306	27.71	221	36.218	336	50.09	243	48.172	453	50.16	$\overline{11}$	23.532	296	65.94	192
Febr. 10	2.111	274	29.92	217	36.554	302	52.52	252	48.625	410	50.27	71	23.828	267	67.86	177
20	2.385	238	32.09	208	36.856	262	55.04	254	49.035	357	50.98	127	24.095	234	69.63	1; 7
März 2	2.623	201	34.17	195	37.118	221	57.58	251	49.392	295	52.25	177	24.329	198	71.20	136
12	2.824	163	36.12	178	37.339	179	60.09	244	49.687	229	54.02	217	24.527	162	72.56	113
22	2.987	126	37.90	160	37.518	139	62.53	231	49.916	162	56.19	247	24.689	128	73.69	90
April 1	3.113	91	39.50	141	37.657	99	64.84	216	50.078	94	58.66	266	24.817	94	74.59	68
11	3.204	59	40.91	120	37.756	62	67.00	198	50.172	30	61.32	274	24.911	63	75.27	48
20	[11] 3.263	29	42.11	101	[12] 37.818	27	68.98	177	[13] 50.202	$\overline{30}$	64.06	271	[13] 24.974	34	75.75	30
30	3.292	2	43.12	80	37.845	$\overline{5}$	70.75	154	50.172	84	66.77	258	25.008	9	76.05	13
Mai 10	3.294	$\overline{23}$	43.92	60	37.840	35	72.29	130	50.088	131	69.35	236	25.017	$\overline{14}$	76.18	$\overline{1}$
20	3.271	46	44.52	40	37.805	61	73.59	103	49.957	172	71.71	205	25.003	36	76.17	14
30	3.225	66	44.92	21	37.744	87	74.62	75	49.785	205	73.76	170	24.967	55	76.03	25
Juni 9	3.159	84	45.13	1	37.657	108	75.37	47	49.580	231	75.46	128	24.912	72	75.78	35
19	3.075	99	45.14	$\overline{18}$	37.549	128	75.84	17	49.349	250	76.74	83	24.840	86	75.43	42
29	2.976	111	44.96	36	37.421	142	76.01	$\overline{12}$	49.099	262	77.57	36	24.754	98	75.01	49
Juli 9	2.865	121	44.60	53	37.279	153	75.89	42	48.837	267	77.93	$\overline{12}$	24.656	107	74.52	55
19	2.744	124	44.07	68	37.126	159	75.47	69	48.570	265	77.81	60	24.549	113	73.97	58
29	2.620	124	43.39	81	36.967	157	74.78	95	48.305	256	77.21	108	24.436	112	73.39	59
Aug. 8	2.496	117	42.58	91	36.810	149	73.83	117	48.049	239	76.13	155	24.324	107	72.80	59
18	2.379	105	41.67	98	36.661	134	72.66	136	47.810	215	74.58	197	24.217	97	72.21	55
28	2.274	84	40.69	100	36.527	109	71.30	148	47.595	182	72.61	237	24.120	79	71.66	48
Sept. 7	2.190	56	39.69	97	36.418	77	69.82	155	47.413	142	70.24	274	24.041	55	71.18	37
17	2.134	22	38.72	89	36.341	36	68.27	155	47.271	93	67.50	305	23.986	24	70.81	23
27	2.112	$\overline{18}$	37.83	74	36.305	$\overline{11}$	66.72	146	47.178	38	64.45	331	23.962	$\overline{13}$	70.58	5
Okt. 7	2.130	64	37.09	55	36.316	64	65.26	131	47.140	$\overline{24}$	61.14	352	23.975	56	70.53	$\overline{18}$
17	2.194	114	36.54	29	36.380	121	63.95	108	47.164	92	57.62	365	24.031	101	70.71	43
27	2.308	164	36.25	0	36.501	179	62.87	79	47.256	162	53.97	370	24.132	149	71.14	70
Nov. 6	2.472	214	36.25	33	36.680	234	62.08	43	47.418	233	50.27	367	24.281	197	71.84	98
16	2.686	260	36.58	67	36.914	285	61.65	3	47.651	300	46.60	355	24.478	240	72.82	127
26	2.946	299	37.25	101	37.199	329	61.62	$\overline{38}$	47.951	363	43.05	333	24.718	279	74.09	152
Dez. 6	3.245	329	38.26	134	37.528	364	62.00	80	48.314	417	39.72	300	24.997	309	75.61	175
16	3.574	350	39.60	162	37.892	385	62.80	121	48.731	459	36.72	259	25.306	331	77.36	193
26	3.924	360	41.22	187	38.277	397	64.01	158	49.190	486	34.13	210	25.637	342	79.29	204
36	4.284		43.09		38.674		65.59		49.676		32.03		25.979		81.33	
Mittl. Ort	2.103		32.94		36.558		59.76		47.671		65.94		23.827		67.01	
sec δ, tg δ	1.085		−0.422		1.243		−0.738		1.752		+1.439		1.018		−0.192	
a, *a'*	+3.3		−19.0		+3.4		−18.9		+2.4		−18.8		+3.2		−18.8	
b, *b'*	+0.03		+ 0.33		+0.05		+ 0.33		−0.09		+ 0.35		+0.01		+ 0.35	

Scheinbare Sternörter 1947

Tag	499) Grb 2001 U Min				500) 69 H. Ursae maj.				501) ζ Virginis				502) 17 H. Can. ven.			
	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1947	$13^h\ 24^m$		+72° 39′		$13^h\ 26^m$		+60° 12′		$13^h\ 31^m$		−0° 19′		$13^h\ 32^m$		+37° 26′	
	s		″		s		″		s		″		s		″	
Jan. 1	45.88	83	44.19	143	29.52	55	55.32	171	58.107	334	28.95	213	24.762	386	63.57	209
11	46.71	86	42.76	78	30.07	55	53.61	109	58.441	331	31.08	204	25.148	387	61.48	162
21	47.57	83	41.98	11	30.62	54	52.52	44	58.772	318	33.12	187	25.535	376	59.86	109
31	48.40	79	41.87	56	31.16	51	52.08	20	59.090	297	34.99	164	25.911	353	58.77	55
Febr. 10	49.19	72	42.43	118	31.67	46	52.28	82	59.387	270	36.63	140	26.264	323	58.22	0
20	49.91	63	43.61	175	32.13	41	53.10	140	59.657	238	38.03	111	26.587	284	58.22	52
März 2	50.54	51	45.36	223	32.54	33	54.50	190	59.895	204	39.14	82	26.871	240	58.74	101
12	51.05	39	47.59	261	32.87	26	56.40	230	60.099	168	39.96	53	27.111	195	59.75	142
22	51.44	26	50.20	288	33.13	19	58.70	261	60.267	134	40.49	27	27.306	147	61.17	175
April 1	51.70	12	53.08	302	33.32	10	61.31	279	60.401	100	40.76	4	27.453	101	62.92	200
11	51.82	1	56.10	304	33.42	3	64.10	287	60.501	70	40.80	17	27.554	58	64.92	216
20	[13] 51.81	13	59.14	295	[14] 33.45	4	66.97	282	[15] 60.571	41	40.63	34	[15] 27.612	17	67.08	221
30	51.68	24	62.09	274	33.41	10	69.79	268	60.612	14	40.29	46	27.629	19	69.29	219
Mai 10	51.44	34	64.83	245	33.31	16	72.47	244	60.626	9	39.83	56	27.610	52	71.48	207
20	51.10	43	67.28	208	33.15	21	74.91	212	60.617	30	39.27	61	27.558	81	73.55	189
30	50.67	49	69.36	163	32.94	25	77.03	174	60.587	50	38.66	65	27.477	106	75.44	165
Juni 9	50.18	55	70.99	115	32.69	29	78.77	131	60.537	68	38.01	65	27.371	126	77.09	136
19	49.63	59	72.14	63	32.40	30	80.08	84	60.469	83	37.36	63	27.245	143	78.45	102
29	49.04	61	72.77	10	32.10	32	80.92	34	60.386	95	36.73	60	27.102	156	79.47	66
Juli 9	48.43	61	72.87	45	31.78	33	81.26	16	60.291	104	36.13	55	26.946	163	80.13	29
19	47.82	61	72.42	98	31.45	32	81.10	67	60.187	111	35.58	47	26.783	166	80.42	11
29	47.21	58	71.44	149	31.13	32	80.43	116	60.076	112	35.11	39	26.617	165	80.31	50
Aug. 8	46.63	54	69.95	197	30.81	29	79.27	164	59.964	108	34.72	29	26.452	157	79.81	90
18	46.09	49	67.98	243	30.52	26	77.63	208	59.856	100	34.43	15	26.295	144	78.91	127
28	45.60	42	65.55	283	30.26	23	75.55	249	59.756	84	34.28	1	26.151	123	77.64	164
Sept. 7	45.18	34	62.72	318	30.03	19	73.06	286	59.672	61	34.27	16	26.028	96	76.00	199
17	44.84	25	59.54	347	29.84	13	70.20	318	59.611	33	34.43	36	25.932	62	74.01	231
27	44.59	14	56.07	370	29.71	6	67.02	344	59.578	2	34.79	57	25.870	21	71.70	261
Okt. 7	44.45	4	52.37	386	29.65	1	63.58	364	59.580	44	35.36	81	25.849	26	69.09	285
17	44.41	9	48.51	393	29.66	8	59.94	376	59.624	88	36.17	107	25.875	77	66.24	306
27	44.50	21	44.58	392	29.74	16	56.18	380	59.712	134	37.24	131	25.952	131	63.18	320
Nov. 6	44.71	34	40.66	380	29.90	24	52.38	375	59.846	181	38.55	155	26.083	186	59.98	327
16	45.05	46	36.86	360	30.14	32	48.63	361	60.027	226	40.10	178	26.269	239	56.71	327
26	45.51	57	33.26	330	30.46	39	45.02	337	60.253	265	41.88	196	26.508	288	53.44	318
Dez. 6	46.08	68	29.96	289	30.85	45	41.65	303	60.518	297	43.84	209	26.796	328	50.26	299
16	46.76	76	27.07	240	31.30	50	38.62	259	60.815	320	45.93	217	27.124	360	47.27	273
26	47.52	81	24.67	183	31.80	54	36.03	208	61.135	334	48.10	218	27.484	380	44.54	236
36	48.33		22.84		32.34		33.95		61.469		50.28		27.864		42.18	
Mittl. Ort	46.77		58.85		30.51		68.54		59.389		32.32		25.880		72.08	
sec δ, tg δ	3.356		+3.204		2.013		+1.747		1.000		−0.006		1.260		+0.766	
a, *a′*	+1.5		−18.7		+2.2		−18.6		+3.1		−18.5		+2.7		−18.4	
b, *b′*	−0.19		+ 0.36		−0.11		+ 0.37		0.00		+ 0.39		−0.05		+ 0.39	

Tag	504) ε Centauri				507) τ Bootis				509) η Ursae maj.				510) 89 Virginis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$13^h\ 36^m$		$-53°\ 11'$		$13^h\ 44^m$		$+17°\ 42'$		$13^h\ 45^m$		$+49°\ 34'$		$13^h\ 46^m$		$-17°\ 52'$	
	s		″		s		″		s		″		s		″	
Jan. 1	28.935	495	31.69	122	43.292	339	69.79	223	26.047	439	26.66	209	57.690	347	6.48	188
11	29.430	488	32.91	166	43.631	340	67.56	195	26.486	446	24.57	153	58.037	346	8.36	198
21	29.918	470	34.57	204	43.971	331	65.61	160	26.932	438	23.04	93	58.383	334	10.34	201
31	30.388	440	36.61	236	44.302	312	64.01	120	27.370	418	22.11	32	58.717	314	12.35	198
Febr. 10	30.828	400	38.97	262	44.614	287	62.81	78	27.788	386	21.79	30	59.031	289	14.33	190
20	31.228	355	41.59	280	44.901	255	62.03	36	28.174	343	22.09	87	59.320	258	16.23	178
März 2	31.583	305	44.39	292	45.156	220	61.67	5	28.517	294	22.96	140	59.578	225	18.01	162
12	31.888	254	47.31	298	45.376	184	61.72	42	28.811	239	24.36	185	59.803	190	19.63	144
22	32.142	201	50.29	297	45.560	146	62.14	75	29.050	182	26.21	221	59.993	156	21.07	125
April 1	32.343	150	53.26	291	45.706	111	62.89	102	29.232	124	28.42	245	60.149	122	22.32	107
11	32.493	99	56.17	278	45.817	77	63.91	121	29.356	68	30.87	261	60.271	91	23.39	87
20	16 32.592	50	58.95	263	18 45.894	45	65.12	136	19 29.424	16	33.48	265	19 60.362	62	24.26	70
30	32.642	3	61.58	242	45.939	15	66.48	142	29.440	33	36.13	258	60.424	33	24.96	52
Mai 10	32.645	42	64.00	217	45.954	12	67.90	143	29.407	77	38.71	244	60.457	7	25.48	37
20	32.603	84	66.17	188	45.942	35	69.33	138	29.330	116	41.15	220	60.464	17	25.85	21
30	32.519	123	68.05	155	45.907	57	70.71	128	29.214	149	43.35	189	60.447	41	26.06	6
Juni 9	32.396	159	69.60	119	45.850	77	71.99	114	29.065	177	45.24	154	60.406	62	26.12	7
19	32.237	191	70.79	81	45.773	93	73.13	97	28.888	201	46.78	113	60.344	82	26.05	19
29	32.046	216	71.60	41	45.680	108	74.10	77	28.687	217	47.91	69	60.262	98	25.86	32
Juli 9	31.830	235	72.01	0	45.572	118	74.87	54	28.470	228	48.60	24	60.164	111	25.54	43
19	31.595	247	72.01	41	45.454	125	75.41	30	28.242	234	48.84	22	60.053	121	25.11	53
29	31.348	249	71.60	80	45.329	127	75.71	5	28.008	232	48.62	68	59.932	126	24.58	61
Aug. 8	31.099	240	70.80	118	45.202	125	75.76	21	27.776	223	47.94	115	59.806	125	23.97	67
18	30.859	221	69.62	152	45.077	117	75.55	48	27.553	207	46.79	158	59.681	116	23.30	71
28	30.638	190	68.10	178	44.960	102	75.07	76	27.346	183	45.21	200	59.565	102	22.59	70
Sept. 7	30.448	148	66.32	200	44.858	80	74.31	104	27.163	152	43.21	238	59.463	80	21.89	65
17	30.300	95	64.32	214	44.778	53	73.27	131	27.011	112	40.83	273	59.383	49	21.24	57
27	30.205	31	62.18	217	44.725	18	71.96	158	26.899	64	38.10	304	59.334	11	20.67	44
Okt. 7	30.174	40	60.01	212	44.707	23	70.38	185	26.835	10	35.06	329	59.323	31	20.23	26
17	30.214	115	57.89	198	44.730	68	68.53	209	26.825	51	31.77	347	59.354	79	19.97	4
27	30.329	191	55.91	173	44.798	116	66.44	231	26.876	114	28.30	360	59.433	130	19.93	23
Nov. 6	30.520	266	54.18	140	44.914	165	64.13	249	26.990	180	24.70	364	59.563	180	20.16	51
16	30.786	335	52.78	100	45.079	212	61.64	260	27.170	244	21.06	358	59.743	227	20.67	80
26	31.121	395	51.78	55	45.291	254	59.04	267	27.414	304	17.48	343	59.970	270	21.47	110
Dez. 6	31.516	442	51.23	6	45.545	290	56.37	265	27.718	355	14.05	318	60.240	304	22.57	137
16	31.958	477	51.17	44	45.835	318	53.72	257	28.073	397	10.87	284	60.544	331	23.94	161
26	32.435	495	51.61	93	46.153	336	51.15	239	28.470	428	8.03	241	60.875	346	25.55	179
36	32.930		52.54		46.489		48.76		28.898		5.62		61.221		27.34	
Mittl. Ort	30.920		51.23		44.555		72.69		27.219		38.05		59.188		15.46	
sec δ, tg δ	1.669		−1.337		1.050		+0.320		1.542		+1.174		1.051		−0.322	
a, *a′*	+3.8		−18.3		+2.9		−18.0		+2.4		−18.0		+3.3		−17.9	
b, *b′*	+0.08		+ 0.41		−0.02		+ 0.44		−0.07		+ 0.44		+0.02		+ 0.45	

Tag	513) η Bootis[1]) AR.		Dekl.		512) ζ Centauri AR.		Dekl.		517) 11 Bootis AR.		Dekl.		516) τ Virginis AR.		Dekl.	
1947	$13^h\ 52^m$		+18° 39′		$13^h\ 52^m$		−47° 1′		$13^h\ 58^m$		+27° 38′		$13^h\ 58^m$		+1° 47′	
	s		″		s		″		s		″		s		″	
Jan. 1	8.312	340	42.12	227	11.299	447	24.14	119	44.942	350	24.47	232	55.361	330	62.82	215
11	8.652	342	39.85	197	11.746	446	25.33	157	45.292	356	22.15	194	55.691	331	60.67	202
21	8.994	333	37.88	162	12.192	432	26.90	191	45.648	350	20.21	150	56.022	324	58.65	184
31	9.327	316	36.26	121	12.624	409	28.81	219	45.998	333	18.71	102	56.346	308	56.81	161
Febr. 10	9.643	292	35.05	77	13.033	377	31.00	240	46.331	310	17.69	52	56.654	284	55.20	133
20	9.935	261	34.28	35	13.410	339	33.40	255	46.641	279	17.17	2	56.938	257	53.87	103
März 2	10.196	227	33.93	7	13.749	296	35.95	265	46.920	244	17.15	44	57.195	225	52.84	72
12	10.423	190	34.00	45	14.045	252	38.60	267	47.164	206	17.59	87	57.420	193	52.12	42
22	10.613	154	34.45	79	14.297	207	41.27	266	47.370	166	18.46	124	57.613	160	51.70	13
April 1	10.767	118	35.24	107	14.504	163	43.93	259	47.536	127	19.70	152	57.773	127	51.57	11
11	10.885	83	36.31	127	14.667	119	46.52	248	47.663	90	21.22	174	57.900	96	51.68	33
20*)	10.968	51	37.58	141	14.786	76	49.00	233	47.753	54	22.96	186	57.996	67	52.01	50
30	11.019	22	38.99	148	14.862	34	51.33	214	47.807	20	24.82	191	58.063	39	52.51	62
Mai 10	11.041	7	40.47	149	14.896	5	53.47	193	47.827	10	26.73	189	58.102	13	53.13	71
20	11.034	31	41.96	143	14.891	44	55.40	167	47.817	39	28.62	178	58.115	10	53.84	75
30	11.003	54	43.39	133	14.847	79	57.07	139	47.778	64	30.40	163	58.105	33	54.59	77
Juni 9	10.949	75	44.72	119	14.768	113	58.46	108	47.714	86	32.03	142	58.072	55	55.36	75
19	10.874	92	45.91	100	14.655	144	59.54	75	47.628	107	33.45	117	58.017	73	56.11	71
29	10.782	107	46.91	79	14.511	170	60.29	40	47.521	123	34.62	89	57.944	89	56.82	65
Juli 9	10.675	118	47.70	55	14.341	190	60.69	4	47.398	136	35.51	58	57.855	103	57.47	57
19	10.557	127	48.25	31	14.151	204	60.73	32	47.262	145	36.09	26	57.752	114	58.04	47
29	10.430	131	48.56	4	13.947	211	60.41	67	47.117	148	36.35	7	57.638	119	58.51	37
Aug. 8	10.299	128	48.60	23	13.736	208	59.74	99	46.969	148	36.28	42	57.519	119	58.88	23
18	10.171	121	48.37	51	13.528	196	58.75	129	46.821	140	35.86	76	57.400	115	59.11	9
28	10.050	107	47.86	79	13.332	172	57.46	154	46.681	127	35.10	110	57.285	102	59.20	7
Sept. 7	9.943	86	47.07	108	13.160	139	55.92	173	46.554	105	34.00	144	57.183	83	59.13	26
17	9.857	59	45.99	136	13.021	95	54.19	184	46.449	76	32.56	175	57.100	57	58.87	46
27	9.798	24	44.63	164	12.926	41	52.35	188	46.373	41	30.81	206	57.043	23	58.41	68
Okt. 7	9.774	16	42.99	190	12.885	20	50.47	184	46.332	1	28.75	233	57.020	16	57.73	91
17	9.790	62	41.09	215	12.905	87	48.63	170	46.333	48	26.42	258	57.036	60	56.82	115
27	9.852	110	38.94	237	12.992	155	46.93	148	46.381	99	23.84	279	57.096	108	55.67	140
Nov. 6	9.962	159	36.57	254	13.147	223	45.45	117	46.480	150	21.05	293	57.204	156	54.27	164
16	10.121	206	34.03	266	13.370	288	44.28	82	46.630	200	18.12	301	57.360	202	52.63	184
26	10.327	250	31.37	272	13.658	345	43.46	40	46.830	248	15.11	302	57.562	244	50.79	201
Dez. 6	10.577	287	28.65	270	14.003	389	43.06	5	47.078	289	12.09	294	57.806	281	48.78	214
16	10.864	316	25.95	261	14.392	424	43.11	49	47.367	321	9.15	278	58.087	308	46.64	219
26	11.180	335	23.34	243	14.816	446	43.60	93	47.688	344	6.37	253	58.395	326	44.45	220
36	11.515		20.91		15.262		44.53		48.032		3.84		58.721		42.25	
Mittl. Ort	9.606		45.47		13.278		41.54		46.246		30.53		56.783		60.77	
sec δ, tg δ	1.055		+0.338		1.467		−1.073		1.129		+0.524		1.001		+0.031	
a, *a′*	+2.9		−17.7		+3.7		−17.7		+2.7		−17.4		+3.1		−17.4	
b, *b′*	−0.02		+ 0.47		+0.06		+ 0.47		−0.03		+ 0.50		0.00		+ 0.50	

[1]) Die jährliche Parallaxe (0.″112) ist bereits berücksichtigt.

*) Bei Stern 517) und 516) lies April 21.

Tag	518) β Centauri AR.		518) β Centauri Dekl.		521) α Draconis AR.		521) α Draconis Dekl.		520) ϑ Centauri AR.		520) ϑ Centauri Dekl.		522) 12 d Bootis AR.		522) 12 d Bootis Dekl.	
1947	$14^h\ 0^m$		$-60°\ 6'$		$14^h\ 2^m$		$+64°\ 37'$		$14^h\ 3^m$		$-36°\ 6'$		$14^h\ 7^m$		$+25°\ 20'$	
	s		"		s		"		s		"		s		"	
Jan. 1	1.26	57	45.89	74	55.74	58	29.33	207	31.437	391	22.42	137	57.495	343	25.52	237
11	1.83	58	46.63	122	56.32	61	27.26	145	31.828	391	23.79	165	57.838	349	23.15	201
21	2.41	56	47.85	167	56.93	61	25.81	81	32.219	382	25.44	189	58.187	346	21.14	159
31	2.97	54	49.52	207	57.54	60	25.00	14	32.601	363	27.33	206	58.533	332	19.55	113
Febr. 10	3.51	49	51.59	240	58.14	56	24.86	—53	32.964	337	29.39	218	58.865	309	18.42	65
20	4.00	45	53.99	266	58.70	50	25.39	115	33.301	306	31.57	224	59.174	281	17.77	16
März 2	4.45	40	56.65	287	59.20	44	26.54	171	33.607	270	33.81	225	59.455	247	17.61	—30
12	4.85	34	59.52	300	59.64	36	28.25	218	33.877	233	36.06	221	59.702	211	17.91	73
22	5.19	28	62.52	307	60.00	27	30.43	256	34.110	196	38.27	214	59.913	174	18.64	110
April 1	5.47	22	65.59	308	60.27	19	32.99	282	34.306	158	40.41	203	60.087	136	19.74	140
11	5.69	15	68.67	303	60.46	10	35.81	296	34.464	122	42.44	191	60.223	100	21.14	163
21	5.84	10	71.70	292	60.56	1	38.77	300	34.586	86	44.35	175	60.323	65	22.77	177
30	[22] 5.94	4	74.62	276	[23] 60.57	—7	41.77	291	[23] 34.672	52	46.10	158	[24] 60.388	32	24.54	184
Mai 10	5.98	—2	77.38	256	60.50	14	44.68	272	34.724	18	47.68	140	60.420	1	26.38	183
20	5.96	8	79.94	229	60.36	21	47.40	245	34.742	—13	49.08	118	60.421	—27	28.21	175
30	5.88	13	82.23	199	60.15	27	49.85	210	34.729	45	50.26	96	60.394	53	29.96	161
Juni 9	5.75	18	84.22	163	59.88	32	51.95	169	34.684	74	51.22	72	60.341	77	31.57	143
19	5.57	22	85.85	125	59.56	36	53.64	122	34.610	100	51.94	47	60.264	98	33.00	121
29	5.35	26	87.10	84	59.20	39	54.86	73	34.510	124	52.41	20	60.166	116	34.21	94
Juli 9	5.09	29	87.94	39	58.81	40	55.59	22	34.386	144	52.61	—6	60.050	130	35.15	65
19	4.80	31	88.33	—6	58.41	42	55.81	—30	34.242	158	52.55	32	59.920	140	35.80	34
29	4.49	32	88.27	50	57.99	41	55.51	82	34.084	167	52.23	58	59.780	147	36.14	2
Aug. 8	4.17	32	87.77	93	57.58	41	54.69	133	33.917	168	51.65	81	59.633	147	36.16	—30
18	3.85	31	86.84	133	57.17	38	53.36	181	33.749	160	50.84	102	59.486	142	35.86	63
28	3.54	27	85.51	169	56.79	34	51.55	227	33.589	145	49.82	118	59.344	129	35.23	97
Sept. 7	3.27	22	83.82	199	56.45	30	49.28	268	33.444	119	48.64	130	59.215	110	34.26	129
17	3.05	16	81.83	220	56.15	25	46.60	305	33.325	84	47.34	136	59.105	82	32.97	161
27	2.89	9	79.63	233	55.90	17	43.55	336	33.241	40	45.98	135	59.023	48	31.36	192
Okt. 7	2.80	1	77.30	237	55.73	10	40.19	362	33.201	—11	44.63	127	58.975	8	29.44	220
17	2.79	—8	74.93	230	55.63	2	36.57	379	33.212	67	43.36	111	58.967	—39	27.24	245
27	2.87	18	72.63	213	55.61	—8	32.78	389	33.279	126	42.25	90	59.006	89	24.79	267
Nov. 6	3.05	27	70.50	185	55.69	17	28.89	390	33.405	185	41.35	61	59.095	140	22.12	283
16	3.32	35	68.65	150	55.86	27	24.99	380	33.590	242	40.74	29	59.235	190	19.29	293
26	3.67	42	67.15	107	56.13	35	21.19	361	33.832	293	40.45	—8	59.425	237	16.36	297
Dez. 6	4.09	49	66.08	60	56.48	44	17.58	332	34.125	334	40.53	45	59.662	279	13.39	292
16	4.58	54	65.48	—9	56.92	51	14.26	292	34.459	367	40.98	82	59.941	312	10.47	278
26	5.12	57	65.39	42	57.43	56	11.34	242	34.826	387	41.80	117	60.253	336	7.69	255
36	5.69		65.81		57.99		8.92		35.213		42.97		60.589		5.14	
Mittl. Ort	3.81		65.78		57.09		43.13		33.282		36.42		58.858		31.01	
sec δ, tg δ	2.007		—1.740		2.334		+2.109		1.238		—0.729		1.106		+0.474	
a, *a'*	+4.2		—17.4		+1.6		—17.2		+3.6		—17.2		+2.7		—17.0	
b, *b'*	+0.10		+ 0.50		—0.12		+ 0.51		+0.04		+ 0.51		—0.03		+ 0.53	

Tag	524) 4 Ursae min. AR.		Dekl.		523) κ Virginis AR.		Dekl.		525) ι Virginis AR.		Dekl.		526) α Bootis AR.		Dekl.	
1947	$14^h\ 8^m$		$+77°\ 47'$		$14^h\ 10^m$		$-10°\ 1'$		$14^h\ 13^m$		$-5°\ 44'$		$14^h\ 13^m$		$+19°\ 27'$	
	s		"		s		"		s		"		s		"	
Jan. 1	59.49	105	32.59	191	2.282	334	34.93	193	12.348	329	50.26	201	13.141	331	23.41	241
11	60.54	112	30.68	127	2.616	336	36.86	193	12.677	333	52.27	198	13.472	337	21.00	211
21	61.66	113	29.41	60	2.952	330	38.79	189	13.010	327	54.25	188	13.809	334	18.89	175
31	62.79	112	28.81	7	3.282	315	40.68	178	13.337	313	56.13	173	14.143	321	17.14	134
Febr. 10	63.91	106	28.88	74	3.597	294	42.46	162	13.650	293	57.86	154	14.464	301	15.80	90
20	64.97	96	29.62	136	3.891	267	44.08	144	13.943	267	59.40	130	14.765	273	14.90	45
März 2	65.93	83	30.98	191	4.158	237	45.52	122	14.210	237	60.70	105	15.038	242	14.45	2
12	66.76	69	32.89	238	4.395	206	46.74	99	14.447	206	61.75	79	15.280	208	14.43	39
22	67.45	51	35.27	273	4.601	174	47.73	76	14.653	175	62.54	54	15.488	173	14.82	75
April 1	67.96	33	38.00	296	4.775	142	48.49	56	14.828	144	63.08	32	15.661	138	15.57	104
11	68.29	14	40.96	309	4.917	112	49.05	36	14.972	113	63.40	12	15.799	104	16.61	128
21	68.43	4	44.05	308	5.029	83	49.41	19	15.085	84	63.52	6	15.903	71	17.89	144
30	68.39	21	47.13	296	5.112	55	49.60	4	15.169	56	63.46	20	15.974	40	19.33	152
Mai 10	68.18	38	50.09	275	5.167	28	49.64	9	15.225	29	63.26	32	16.014	10	20.85	155
20	67.80	52	52.84	244	5.195	2	49.55	19	15.254	4	62.94	40	16.024	16	22.40	151
30	67.28	65	55.28	206	5.197	22	49.36	28	15.258	21	62.54	45	16.008	43	23.91	141
Juni 9	66.63	75	57.34	161	5.175	45	49.08	34	15.237	43	62.09	49	15.965	66	25.32	126
19	65.88	84	58.95	112	5.130	67	48.74	40	15.194	65	61.60	51	15.899	86	26.58	109
29	65.04	91	60.07	60	5.063	86	48.34	43	15.129	84	61.09	51	15.813	105	27.67	87
Juli 9	64.13	94	60.67	6	4.977	102	47.91	47	15.045	100	60.58	50	15.708	121	28.54	63
19	63.19	95	60.73	48	4.875	114	47.44	48	14.945	114	60.08	48	15.587	133	29.17	37
29	62.24	95	60.25	101	4.761	123	46.96	48	14.831	122	59.60	43	15.454	139	29.54	10
Aug. 8	61.29	92	59.24	152	4.638	126	46.48	47	14.709	124	59.17	37	15.315	141	29.64	19
18	60.37	87	57.72	202	4.512	122	46.01	42	14.585	122	58.80	30	15.174	137	29.45	48
28	59.50	79	55.70	246	4.390	111	45.59	37	14.463	111	58.50	19	15.037	127	28.97	77
Sept. 7	58.71	70	53.24	287	4.279	92	45.22	27	14.352	94	58.31	7	14.910	108	28.20	107
17	58.01	59	50.37	322	4.187	66	44.95	15	14.258	68	58.24	8	14.802	82	27.13	137
27	57.42	46	47.15	352	4.121	32	44.80	0	14.190	35	58.32	26	14.720	49	25.76	165
Okt. 7	56.96	31	43.63	374	4.089	8	44.80	20	14.155	4	58.58	46	14.671	10	24.11	194
17	56.65	14	39.89	388	4.097	53	45.00	41	14.159	49	59.04	68	14.661	34	22.17	219
27	56.51	3	36.01	395	4.150	102	45.41	66	14.208	96	59.72	93	14.695	83	19.98	242
Nov. 6	56.54	21	32.06	392	4.252	152	46.07	91	14.304	146	60.65	118	14.778	134	17.56	261
16	56.75	39	28.14	380	4.404	200	46.98	116	14.450	194	61.83	141	14.912	183	14.95	274
26	57.14	57	24.34	356	4.604	244	48.14	140	14.644	238	63.24	163	15.095	228	12.21	281
Dez. 6	57.71	73	20.78	323	4.848	281	49.54	161	14.882	275	64.87	180	15.323	268	9.40	281
16	58.44	88	17.55	279	5.129	310	51.15	178	15.157	304	66.67	194	15.591	301	6.59	273
26	59.32	100	14.76	228	5.439	329	52.93	189	15.461	325	68.61	200	15.892	324	3.86	256
36	60.32		12.48		5.768		54.82		15.786		70.61		16.216		1.30	
Mittl. Ort	61.25		47.43		3.850		40.61		13.899		54.44		14.552		27.23	
sec δ, tg δ	4.731		+4.624		1.016		−0.177		1.005		−0.101		1.061		+0.353	
a, *a'*	−0.2		−17.0		+3.2		−16.9		+3.1		−16.7		+2.8		−16.7	
b, *b'*	−0.26		+ 0.53		+0.01		+ 0.54		+0.01		+ 0.55		−0.02		+ 0.55	

Tag	527) λ Bootis AR.		527) λ Bootis Dekl.		531) ϑ Bootis AR.		531) ϑ Bootis Dekl.		534) ρ Bootis AR.		534) ρ Bootis Dekl.		535) γ Bootis AR.		535) γ Bootis Dekl.	
1947	14h 14m		+46° 19′		14h 23m		+52° 5′		14h 29m		+30° 35′		14h 29m		+38° 31′	
	s		″		s		″		s		″		s		″	
Jan. 1	20.764	403	40.82	239	22.040	430	30.40	244	31.222	343	64.51	250	55.130	363	72.37	253
11	21.167	417	38.43	187	22.470	450	27.96	191	31.565	354	62.01	211	55.493	377	69.84	208
21	21.584	418	36.56	130	22.920	454	26.05	131	31.919	356	59.90	166	55.870	380	67.76	157
31	22.002	405	35.26	70	23.374	445	24.74	68	32.275	347	58.24	116	56.250	371	66.19	101
Febr. 10	22.407	382	34.56	8	23.819	423	24.06	4	32.622	328	57.08	63	56.621	353	65.18	43
20	22.789	348	34.48	52	24.242	388	24.02	59	32.950	303	56.45	10	56.974	325	64.75	15
März 2	23.137	307	35.00	108	24.630	345	24.61	117	33.253	272	56.35	41	57.299	291	64.90	69
12	23.444	260	36.08	156	24.975	294	25.78	168	33.525	236	56.76	88	57.590	253	65.59	119
22	23.704	210	37.64	198	25.269	239	27.46	211	33.761	199	57.64	129	57.843	211	66.78	162
April 1	23.914	159	39.62	229	25.508	181	29.57	244	33.960	160	58.93	163	58.054	167	68.40	196
11	24.073	108	41.91	251	25.689	123	32.01	266	34.120	122	60.56	188	58.221	125	70.36	222
21	24.181	58	44.42	261	25.812	66	34.67	277	34.242	85	62.44	204	58.346	82	72.58	236
30	[26] 24.239	11	47.03	262	[28] 25.878	12	37.44	277	[30] 34.327	49	64.48	212	[30] 58.428	41	74.94	243
Mai 10	24.250	33	49.65	254	25.890	41	40.21	269	34.376	15	66.60	213	58.469	2	77.37	239
20	24.217	73	52.19	236	25.849	88	42.90	250	34.391	18	68.73	204	58.471	34	79.76	228
30	24.144	109	54.55	211	25.761	131	45.40	223	34.373	48	70.77	189	58.437	67	82.04	209
Juni 9	24.035	142	56.66	179	25.630	169	47.63	190	34.325	76	72.66	168	58.370	98	84.13	184
19	23.893	169	58.45	144	25.461	201	49.53	152	34.249	100	74.34	143	58.272	126	85.97	153
29	23.724	192	59.89	103	25.260	229	51.05	109	34.149	123	75.77	114	58.146	150	87.50	118
Juli 9	23.532	209	60.92	60	25.031	250	52.14	63	34.026	141	76.91	81	57.996	169	88.68	81
19	23.323	221	61.52	15	24.781	264	52.77	15	33.885	156	77.72	46	57.827	183	89.49	40
29	23.102	227	61.67	31	24.517	271	52.92	32	33.729	165	78.18	10	57.644	193	89.89	1
Aug. 8	22.875	225	61.36	76	24.246	271	52.60	81	33.564	169	78.28	26	57.451	196	89.88	43
18	22.650	217	60.60	120	23.975	262	51.79	129	33.395	167	78.02	64	57.255	192	89.45	85
28	22.433	199	59.40	164	23.713	244	50.50	174	33.228	156	77.38	102	57.063	180	88.60	127
Sept. 7	22.234	174	57.76	205	23.469	216	48.76	216	33.072	138	76.36	138	56.883	161	87.33	166
17	22.060	141	55.71	243	23.253	181	46.60	257	32.934	113	74.98	173	56.722	132	85.67	204
27	21.919	98	53.28	277	23.072	135	44.03	292	32.821	79	73.25	206	56.590	97	83.63	239
Okt. 7	21.821	49	50.51	307	22.937	80	41.11	322	32.742	39	71.19	237	56.493	53	81.24	270
17	21.772	7	47.44	331	22.857	19	37.89	347	32.703	9	68.82	264	56.440	2	78.54	298
27	21.779	68	44.13	348	22.838	47	34.42	365	32.712	60	66.18	287	56.438	53	75.56	319
Nov. 6	21.847	132	40.65	358	22.885	117	30.77	374	32.772	113	63.31	305	56.491	110	72.37	334
16	21.979	195	37.07	360	23.002	188	27.03	374	32.885	167	60.26	314	56.601	168	69.03	342
26	22.174	255	33.47	352	23.190	255	23.29	365	33.052	218	57.12	316	56.769	224	65.61	339
Dez. 6	22.429	309	29.95	333	23.445	317	19.64	345	33.270	264	53.96	311	56.993	274	62.22	329
16	22.738	355	26.62	305	23.762	370	16.19	315	33.534	303	50.85	295	57.267	316	58.93	307
26	23.093	389	23.57	267	24.132	412	13.04	275	33.837	331	47.90	270	57.583	349	55.86	277
36	23.482		20.90		24.544		10.29		34.168		45.20		57.932		53.09	
Mittl. Ort	22.137		51.55		23.491		42.21		32.691		71.59		56.595		81.38	
sec δ, tg δ	1.448		+1.048		1.628		+1.284		1.162		+0.592		1.278		+0.797	
a, a'	+2.3		−16.7		+2.1		−16.2		+2.6		−15.9		+2.4		−15.9	
b, b'	−0.06		+ 0.55		−0.07		+ 0.59		−0.03		+ 0.61		−0.04		+ 0.61	

Scheinbare Sternörter 1947

Tag	537) η Centauri AR.		537) η Centauri Dekl.		538) α Centauri [1]) AR.		538) α Centauri [1]) Dekl.		1382) 32 Bootis AR.		1382) 32 Bootis Dekl.		545) μ Virginis AR.		545) μ Virginis Dekl.	
1947	14h 32m		−41° 55′		14h 35m		−60° 36′		14h 39m		+11° 52′		14h 40m		−5° 25′	
	s		″		s		″		s		″		s		″	
Jan. 1	5.686	410	20.09	90	55.97	56	50.97	33	9.043	317	74.59	232	14.104	321	40.72	195
11	6.096	419	20.99	124	56.53	58	51.30	81	9.360	328	72.27	211	14.425	329	42.67	191
21	6.515	416	22.23	153	57.11	57	52.11	126	9.688	327	70.16	183	14.754	328	44.58	182
31	6.931	402	23.76	178	57.68	56	53.37	166	10.015	319	68.33	150	15.082	320	46.40	167
Febr. 10	7.333	381	25.54	196	58.24	53	55.03	202	10.334	304	66.83	113	15.402	303	48.07	148
20	7.714	352	27.50	209	58.77	48	57.05	232	10.638	281	65.70	73	15.705	281	49.55	124
März 2	8.066	319	29.59	219	59.25	44	59.37	254	10.919	255	64.97	34	15.986	256	50.79	99
12	8.385	284	31.78	222	59.69	38	61.91	272	11.174	226	64.63	4	16.242	228	51.78	73
22	8.669	247	34.00	221	60.07	33	64.63	284	11.400	195	64.67	39	16.470	198	52.51	48
April 1	8.916	208	36.21	218	60.40	27	67.47	289	11.595	164	65.06	70	16.668	169	52.99	25
11	9.124	169	38.39	210	60.67	20	70.36	289	11.759	132	65.76	94	16.837	140	53.24	4
21	9.293	131	40.49	200	60.87	15	73.25	284	11.891	101	66.70	112	16.977	111	53.28	13
30*)	30 9.424	92	42.49	187	1 61.02	8	76.09	274	2 11.992	72	67.82	125	3 17.088	82	53.15	27
Mai 10	9.516	54	44.36	172	61.10	3	78.83	257	12.064	42	69.07	132	17.170	55	52.88	38
20	9.570	15	46.08	153	61.13	4	81.40	237	12.106	15	70.39	133	17.225	27	52.50	45
30	9.585	21	47.61	132	61.09	10	83.77	212	12.121	13	71.72	129	17.252	0	52.05	51
Juni 9	9.564	58	48.93	109	60.99	15	85.89	181	12.108	38	73.01	120	17.252	26	51.54	53
19	9.506	93	50.02	83	60.84	21	87.70	146	12.070	63	74.21	109	17.226	50	51.01	54
29	9.413	123	50.85	56	60.63	25	89.16	109	12.007	85	75.30	93	17.176	73	50.47	52
Juli 9	9.290	151	51.41	27	60.38	29	90.25	68	11.922	104	76.23	76	17.103	94	49.95	51
19	9.139	173	51.68	3	60.09	33	90.93	25	11.818	120	76.99	55	17.009	112	49.44	46
29	8.966	187	51.65	32	59.76	34	91.18	19	11.698	132	77.54	35	16.897	124	48.98	41
Aug. 8	8.779	195	51.33	62	59.42	34	90.99	62	11.566	139	77.89	12	16.773	131	48.57	35
18	8.584	193	50.71	89	59.08	34	90.37	104	11.427	139	78.01	11	16.642	132	48.22	27
28	8.391	180	49.82	112	58.74	32	89.33	142	11.288	132	77.90	36	16.510	126	47.95	17
Sept. 7	8.211	157	48.70	132	58.42	27	87.91	175	11.156	118	77.54	62	16.384	111	47.78	5
17	8.054	122	47.38	145	58.15	22	86.16	202	11.038	95	76.92	88	16.273	89	47.73	9
27	7.932	79	45.93	153	57.93	15	84.14	221	10.943	66	76.04	115	16.184	59	47.82	27
Okt. 7	7.853	26	44.40	152	57.78	8	81.93	232	10.877	29	74.89	141	16.125	21	48.09	45
17	7.827	34	42.88	145	57.70	2	79.61	231	10.848	14	73.48	167	16.104	22	48.54	67
27	7.861	98	41.43	129	57.72	12	77.30	222	10.862	61	71.81	191	16.126	70	49.21	90
Nov. 6	7.959	163	40.14	107	57.84	21	75.08	201	10.923	111	69.90	213	16.196	119	50.11	113
16	8.122	227	39.07	79	58.05	30	73.07	173	11.034	160	67.77	231	16.315	169	51.24	136
26	8.349	285	38.28	44	58.35	38	71.34	136	11.194	207	65.46	244	16.484	215	52.60	156
Dez. 6	8.634	335	37.84	7	58.73	45	69.98	93	11.401	248	63.02	251	16.699	256	54.16	174
16	8.969	375	37.77	30	59.18	52	69.05	46	11.649	283	60.51	249	16.955	289	55.90	186
26	9.344	403	38.07	68	59.70	55	68.59	2	11.932	308	58.02	242	17.244	313	57.76	194
36	9.747		38.75		60.25		68.61		12.240		55.60		17.557		59.70	
Mittl. Ort	7.878		34.24		58.93		69.01		10.621		76.55		15.798		44.00	
sec δ, tg δ	1.344		−0.898		2.038		−1.776		1.022		+0.211		1.005		−0.095	
a, *a′*	+3.8		−15.8		+4.6		−15.6		+2.9		−15.4		+3.2		−15.3	
b, *b′*	+0.05		+ 0.62		+0.09		+ 0.63		−0.01		+ 0.64		0.00		+ 0.64	

[1]) Ort des helleren Sterns. Die jährliche Parallaxe (0.″756) ist bereits berücksichtigt.

*) Bei Stern 538), 1382) und 545) lies Mai 1.

Tag	542) α Apodis				547) 109 Virginis				548) α^2 Librae				549) Grb 2164 Draco			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$14^h\ 41^m$		$-78°\ 48'$		$14^h\ 43^m$		$+2°\ 6'$		$14^h\ 47^m$		$-15°\ 49'$		$14^h\ 50^m$		$+59°\ 30'$	
	s		"		s		"		s		"		s		"	
Jan. 1	4.00	128	59.94	38	32.336	315	55.32	212	54.654	329	15.60	161	3.729	466	18.84	263
11	5.28	133	59.56	18	32.651	325	53.20	201	54.983	338	17.21	169	4.195	501	16.21	209
21	6.61	134	59.74	74	32.976	325	51.19	183	55.321	339	18.90	172	4.696	518	14.12	148
31	7.95	133	60.48	127	33.301	317	49.36	160	55.660	330	20.62	168	5.214	520	12.64	83
Febr. 10	9.28	127	61.75	176	33.618	302	47.76	133	55.990	314	22.30	159	5.734	504	11.81	16
20	10.55	119	63.51	219	33.920	280	46.43	102	56.304	294	23.89	147	6.238	474	11.65	51
März 2	11.74	109	65.70	257	34.200	256	45.41	70	56.598	269	25.36	132	6.712	430	12.16	112
12	12.83	98	68.27	289	34.456	228	44.71	39	56.867	242	26.68	114	7.142	377	13.28	168
22	13.81	84	71.16	313	34.684	198	44.32	9	57.109	212	27.82	97	7.519	315	14.96	216
April 1	14.65	69	74.29	330	34.882	169	44.23	17	57.321	183	28.79	79	7.834	248	17.12	254
11	15.34	53	77.59	342	35.051	139	44.40	40	57.504	154	29.58	62	8.082	177	19.66	280
21	15.87	37	81.01	346	35.190	110	44.80	59	57.658	125	30.20	46	8.259	106	22.46	295
Mai 1	16.24	20	84.47	342	35.300	81	45.39	73	57.783	95	30.66	33	8.365	37	25.41	300
10	3 16.44	4	87.89	332	3 35.381	53	46.12	81	4 57.878	66	30.99	21	5 8.402	30	28.41	293
20	16.48	14	91.21	314	35.434	26	46.93	87	57.944	37	31.20	10	8.372	93	31.34	277
30	16.34	30	94.35	290	35.460	2	47.80	88	57.981	9	31.30	1	8.279	152	34.11	252
Juni 9	16.04	45	97.25	260	35.458	27	48.68	85	57.990	20	31.31	8	8.127	205	36.63	219
19	15.59	60	99.85	222	35.431	52	49.53	81	57.970	46	31.23	16	7.922	251	38.82	181
29	14.99	73	102.07	179	35.379	75	50.34	73	57.924	72	31.07	22	7.671	290	40.63	137
Juli 9	14.26	83	103.86	132	35.304	95	51.07	64	57.852	95	30.85	29	7.381	322	42.00	90
19	13.43	90	105.18	80	35.209	112	51.71	53	57.757	115	30.56	34	7.059	346	42.90	40
29	12.53	96	105.98	27	35.097	126	52.24	41	57.642	129	30.22	40	6.713	360	43.30	11
Aug. 8	11.57	97	106.25	28	34.971	133	52.65	27	57.513	138	29.82	43	6.353	366	43.19	62
18	10.60	96	105.97	81	34.838	134	52.92	12	57.375	141	29.39	44	5.987	360	42.57	112
28	9.64	89	105.16	133	34.704	128	53.04	4	57.234	135	28.95	45	5.627	344	41.45	161
Sept. 7	8.75	79	103.83	180	34.576	115	53.00	23	57.099	121	28.50	43	5.283	317	39.84	208
17	7.96	66	102.03	220	34.461	94	52.77	43	56.978	98	28.07	36	4.966	278	37.76	250
27	7.30	49	99.83	253	34.367	64	52.34	64	56.880	67	27.71	27	4.688	229	35.26	290
Okt. 7	6.81	30	97.30	275	34.303	27	51.70	87	56.813	28	27.44	14	4.459	168	32.36	323
17	6.51	9	94.55	286	34.276	15	50.83	110	56.785	17	27.30	4	4.291	98	29.13	351
27	6.42	14	91.69	287	34.291	63	49.73	134	56.802	67	27.34	24	4.193	21	25.62	372
Nov. 6	6.56	37	88.82	274	34.354	112	48.39	157	56.869	119	27.58	46	4.172	62	21.90	384
16	6.93	60	86.08	252	34.466	160	46.82	177	56.988	170	28.04	71	4.234	146	18.06	387
26	7.53	80	83.56	218	34.626	207	45.05	195	57.158	218	28.75	94	4.380	229	14.19	380
Dez. 6	8.33	97	81.38	175	34.833	248	43.10	208	57.376	260	29.69	118	4.609	308	10.39	361
16	9.30	113	79.63	127	35.081	281	41.02	214	57.636	295	30.87	138	4.917	378	6.78	333
26	10.43	124	78.36	73	35.362	307	38.88	216	57.931	321	32.25	154	5.295	437	3.45	294
36	11.67		77.63		35.669		36.72		58.252		33.79		5.732		0.51	
Mittl. Ort	10.62		79.84		33.991		54.44		56.490		21.74		5.457		31.51	
sec δ, tg δ	5.159		−5.061		1.001		+0.037		1.039		−0.283		1.971		+1.698	
a, a'	+7.4		−15.3		+3.0		−15.2		+3.3		−14.9		+1.5		−14.8	
b, b'	+0.26		+ 0.65		0.00		+ 0.65		+0.01		+ 0.67		−0.08		+ 0.68	

Scheinbare Sternörter 1947

Tag	550) β Ursae min. AR.		550) Dekl.		551) Pi 14ʰ 221 Boot AR.		551) Dekl.		552) β Lupi AR.		552) Dekl.		555) β Bootis AR.		555) Dekl.	
1947	$14^h\ 50^m$		$+74°\ 21'$		$14^h\ 53^m$		$+14°\ 39'$		$14^h\ 55^m$		$-42°\ 55'$		$14^h\ 59^m$		$+40°\ 35'$	
	s		″		s		″		s		″		s		″	
Jan. 1	47.90	77	65.65	246	41.364	312	30.95	238	0.579	407	5.30	63	55.249	348	45.99	275
11	48.67	84	63.19	188	41.676	325	28.57	216	0.986	421	5.93	97	55.597	371	43.24	231
21	49.51	88	61.31	125	42.001	328	26.41	186	1.407	424	6.90	126	55.968	380	40.93	180
31	50.39	90	60.06	57	42.329	323	24.55	151	1.831	415	8.16	152	56.348	380	39.13	125
Febr. 10	51.29	88	59.49	12	42.652	310	23.04	111	2.246	399	9.68	173	56.728	368	37.88	65
20	52.17	83	59.61	78	42.962	290	21.93	69	2.645	374	11.41	188	57.096	347	37.23	4
März 2	53.00	75	60.39	140	43.252	265	21.24	27	3.019	345	13.29	200	57.443	319	37.19	53
12	53.75	65	61.79	194	43.517	238	20.97	14	3.364	312	15.29	206	57.762	284	37.72	107
22	54.40	53	63.73	240	43.755	208	21.11	51	3.676	278	17.35	209	58.046	245	38.79	155
April 1	54.93	41	66.13	275	43.963	177	21.62	83	3.954	241	19.44	209	58.291	203	40.34	195
11	55.34	26	68.88	298	44.140	146	22.45	110	4.195	203	21.53	205	58.494	161	42.29	224
21	55.60	13	71.86	310	44.286	115	23.55	130	4.398	164	23.58	197	58.655	117	44.53	245
Mai 1	55.73	2	74.96	310	44.401	84	24.85	143	4.562	125	25.55	189	58.772	74	46.98	255
10	5 55.71	15	78.06	300	6 44.485	54	26.28	149	6 4.687	85	27.44	176	8 58.846	33	49.53	257
20	55.56	28	81.06	278	44.539	25	27.77	151	4.772	45	29.20	161	58.879	9	52.10	248
30	55.28	39	83.84	249	44.564	4	29.28	146	4.817	4	30.81	143	58.870	47	54.58	233
Juni 9	54.89	50	86.33	212	44.560	32	30.74	136	4.821	35	32.24	123	58.823	82	56.91	210
19	54.39	58	88.45	169	44.528	58	32.10	123	4.786	74	33.47	100	58.741	116	59.01	180
29	53.81	65	90.14	122	44.470	82	33.33	105	4.712	110	34.47	74	58.625	146	60.81	147
Juli 9	53.16	71	91.36	72	44.388	103	34.38	86	4.602	142	35.21	47	58.479	171	62.28	109
19	52.45	74	92.08	18	44.285	122	35.24	63	4.460	169	35.68	18	58.308	193	63.37	68
29	51.71	77	92.26	35	44.163	136	35.87	40	4.291	189	35.86	12	58.115	207	64.05	25
Aug. 8	50.94	77	91.91	88	44.027	145	36.27	14	4.102	202	35.74	41	57.908	216	64.30	19
18	50.17	74	91.03	139	43.882	147	36.41	12	3.900	204	35.33	70	57.692	217	64.11	62
28	49.43	72	89.64	188	43.735	143	36.29	39	3.696	196	34.63	96	57.475	211	63.49	106
Sept. 7	48.71	66	87.76	235	43.592	130	35.90	66	3.500	178	33.67	117	57.264	196	62.43	148
17	48.05	59	85.41	276	43.462	109	35.24	95	3.322	147	32.50	135	57.068	170	60.95	189
27	47.46	49	82.65	313	43.353	81	34.29	124	3.175	105	31.15	147	56.898	138	59.06	228
Okt. 7	46.97	39	79.52	345	43.272	45	33.05	151	3.070	54	29.68	151	56.760	96	56.78	263
17	46.58	26	76.07	369	43.227	2	31.54	178	3.016	5	28.17	148	56.664	46	54.15	293
27	46.32	13	72.38	386	43.225	44	29.76	203	3.021	70	26.69	137	56.618	9	51.22	319
Nov. 6	46.19	2	68.52	393	43.269	94	27.73	225	3.091	136	25.32	119	56.627	68	48.03	337
16	46.21	17	64.59	392	43.363	145	25.48	242	3.227	202	24.13	95	56.695	128	44.66	348
26	46.38	32	60.67	380	43.508	193	23.06	255	3.429	264	23.18	65	56.823	188	41.18	351
Dez. 6	46.70	46	56.87	356	43.701	236	20.51	261	3.693	318	22.53	31	57.011	243	37.67	343
16	47.16	59	53.31	323	43.937	272	17.90	259	4.011	363	22.22	5	57.254	290	34.24	325
26	47.75	70	50.08	279	44.209	302	15.31	249	4.374	397	22.27	41	57.544	331	30.99	297
36	48.45		47.29		44.511		12.82		4.771		22.68		57.875		28.02	
Mittl. Ort	50.17		79.69		43.002		33.93		2.974		18.36		56.892		55.36	
sec δ, tg δ	3.712		+3.575		1.034		+0.262		1.366		−0.930		1.317		+0.857	
a, *a′*	−0.2		−14.7		+2.8		−14.6		+3.9		−14.5		+2.3		−14.2	
b, *b′*	−0.18		+ 0.68		−0.01		+ 0.69		+0.04		+ 0.69		−0.04		+ 0.71	

Tag	556) σ Librae AR.		Dekl.		557) ψ Bootis AR.		Dekl.		558) ζ Lupi AR.		Dekl.		563) δ Bootis AR.		Dekl.	
1947	$15^h\ 0^m$		$-25°\ 4'$		$15^h\ 2^m$		$+27°\ 8'$		$15^h\ 8^m$		$-51°\ 53'$		$15^h\ 13^m$		$+33°\ 30'$	
	s		"		s		"		s		"		s		"	
Jan. 1	55.674	341	21.73	123	8.737	318	65.50	262	24.952	460	42.44	15	20.162	322	33.60	276
11	56.015	353	22.96	139	9.055	336	62.88	229	25.412	479	42.59	55	20.484	343	30.84	239
21	56.368	356	24.35	151	9.391	342	60.59	189	25.891	487	43.14	92	20.827	353	28.45	195
31	56.724	349	25.86	159	9.733	340	58.70	143	26.378	482	44.06	126	21.180	355	26.50	144
Febr. 10	57.073	336	27.45	160	10.073	328	57.27	92	26.860	467	45.32	155	21.535	346	25.06	89
20	57.409	316	29.05	158	10.401	310	56.35	39	27.327	444	46.87	181	21.881	328	24.17	32
März 2	57.725	293	30.63	152	10.711	285	55.96	$\overline{11}$	27.771	413	48.68	202	22.209	305	23.85	$\overline{24}$
12	58.018	265	32.15	144	10.996	255	56.07	60	28.184	378	50.70	216	22.514	276	24.09	76
22	58.283	237	33.59	133	11.251	224	56.67	103	28.562	339	52.86	228	22.790	242	24.85	123
April 1	58.520	207	34.92	121	11.475	190	57.70	141	28.901	297	55.14	235	23.032	207	26.08	163
11	58.727	177	36.13	110	11.665	155	59.11	170	29.198	253	57.49	238	23.239	170	27.71	195
21	58.904	146	37.23	97	11.820	120	60.81	191	29.451	207	59.87	236	23.409	132	29.66	218
Mai 1	59.050	116	38.20	85	8 11.940	85	62.72	204	10 29.658	160	62.23	231	23.541	94	31.84	232
10*)	9 59.166	84	39.05	74	12.025	50	64.76	209	29.818	111	64.54	222	23.635	56	34.16	237
20	59.250	52	39.79	62	12.075	18	66.85	206	29.929	61	66.76	208	11 23.691	20	36.53	233
30	59.302	20	40.41	49	12.093	$\overline{15}$	68.91	197	29.990	10	68.84	191	23.711	$\overline{17}$	38.86	221
Juni 9	59.322	$\overline{11}$	40.90	38	12.078	46	70.88	180	30.000	$\overline{39}$	70.75	170	23.694	50	41.07	204
19	59.311	42	41.28	26	12.032	74	72.68	159	29.961	88	72.45	145	23.644	83	43.11	180
29	59.269	72	41.54	12	11.958	102	74.27	133	29.873	132	73.90	116	23.561	113	44.91	151
Juli 9	59.197	98	41.66	$\overline{2}$	11.856	125	75.60	104	29.741	174	75.06	85	23.448	139	46.42	118
19	59.099	121	41.64	14	11.731	145	76.64	73	29.567	210	75.91	50	23.309	162	47.60	81
29	58.978	139	41.50	28	11.586	160	77.37	38	29.357	235	76.41	13	23.147	179	48.41	44
Aug. 8	58.839	151	41.22	41	11.426	170	77.75	3	29.122	252	76.54	$\overline{22}$	22.968	190	48.85	4
18	58.688	156	40.81	51	11.256	173	77.78	$\overline{33}$	28.870	259	76.32	59	22.778	195	48.89	$\overline{36}$
28	58.532	152	40.30	61	11.083	168	77.45	69	28.611	251	75.73	94	22.583	192	48.53	77
Sept. 7	58.380	138	39.69	68	10.915	156	76.76	105	28.360	231	74.79	124	22.391	180	47.76	116
17	58.242	115	39.01	70	10.759	136	75.71	140	28.129	197	73.55	150	22.211	160	46.60	156
27	58.127	83	38.31	68	10.623	106	74.31	175	27.932	150	72.05	171	22.051	130	45.04	193
Okt. 7	58.044	43	37.63	62	10.517	69	72.56	208	27.782	91	70.34	183	21.921	93	43.11	229
17	58.001	$\overline{5}$	37.01	51	10.448	26	70.48	237	27.691	23	68.51	188	21.828	48	40.82	259
27	58.006	57	36.50	35	10.422	$\overline{24}$	68.11	263	27.668	$\overline{52}$	66.63	184	21.780	$\overline{3}$	38.23	287
Nov. 6	58.063	112	36.15	14	10.446	77	65.48	284	27.720	130	64.79	171	21.783	58	35.36	309
16	58.175	167	36.01	$\overline{9}$	10.523	130	62.64	299	27.850	208	63.08	149	21.841	114	32.27	323
26	58.342	219	36.10	35	10.653	182	59.65	308	28.058	281	61.59	122	21.955	170	29.04	330
Dez. 6	58.561	264	36.45	61	10.835	229	56.57	307	28.339	347	60.37	88	22.125	221	25.74	329
16	58.825	303	37.06	87	11.064	271	53.50	297	28.686	401	59.49	50	22.346	267	22.45	316
26	59.128	331	37.93	110	11.335	304	50.53	279	29.087	444	58.99	10	22.613	304	19.29	295
36	59.459		39.03		11.639		47.74		29.531		58.89		22.917		16.34	
Mittl. Ort	57.708		29.93		10.382		71.84		27.802		56.52		21.863		41.41	
sec δ, tg δ	1.104		−0.468		1.124		+0.513		1.621		−1.275		1.199		+0.662	
a, a'	+3.5		−14.1		+2.6		−14.0		+4.3		−13.6		+2.4		−13.3	
b, b'	+0.02		+ 0.71		−0.02		+ 0.71		+0.06		+ 0.73		−0.03		+ 0.75	

*) Bei Stern 563) lies Mai 11.

Scheinbare Sternörter 1947

Tag		560) γ Triang. austr. AR.		Dekl.		565) ι H. Ursae min. AR.		Dekl.	
1947		$15^h\ 13^m$		$-68°\ 28'$		$15^h\ 13^m$		$+67°\ 32'$	
		s		"		s		"	
Jan.	1	51.42	71	52.35	51	58.99	54	38.77	281
	11	52.13	74	51.84	3	59.53	60	35.96	227
	21	52.87	76	51.81	46	60.13	64	33.69	166
	31	53.63	76	52.27	94	60.77	65	32.03	101
Febr.	10	54.39	74	53.21	137	61.42	65	31.02	32
	20	55.13	71	54.58	176	62.07	62	30.70	36
März	2	55.84	67	56.34	210	62.69	58	31.06	101
	12	56.51	61	58.44	239	63.27	52	32.07	160
	22	57.12	54	60.83	263	63.79	44	33.67	211
April	1	57.66	48	63.46	281	64.23	35	35.78	252
	11	58.14	40	66.27	293	64.58	27	38.30	283
	21	58.54	33	69.20	300	64.85	16	41.13	302
Mai	1	58.87	23	72.20	300	65.01	7	44.15	310
	11	59.10	15	75.20	295	65.08	2	47.25	307
	20	11 59.25	6	78.15	284	11 65.06	11	50.32	294
	30	59.31	2	80.99	266	64.95	20	53.26	270
Juni	9	59.29	12	83.65	243	64.75	28	55.96	239
	19	59.17	20	86.08	213	64.47	34	58.35	201
	29	58.97	28	88.21	179	64.13	41	60.36	159
Juli	9	58.69	34	90.00	139	63.72	45	61.95	111
	19	58.35	41	91.39	96	63.27	49	63.06	60
	29	57.94	45	92.35	49	62.78	52	63.66	9
Aug.	8	57.49	47	92.84	2	62.26	53	63.75	44
	18	57.02	48	92.86	47	61.73	53	63.31	97
	28	56.54	47	92.39	95	61.20	51	62.34	147
Sept.	7	56.07	43	91.44	139	60.69	49	60.87	195
	17	55.64	38	90.05	178	60.20	44	58.92	242
	27	55.26	30	88.27	210	59.76	38	56.50	283
Okt.	7	54.96	20	86.17	235	59.38	30	53.67	319
	17	54.76	9	83.82	250	59.08	23	50.48	350
	27	54.67	3	81.32	253	58.85	12	46.98	373
Nov.	6	54.70	15	78.79	247	58.73	2	43.25	388
	16	54.85	28	76.32	231	58.71	9	39.37	394
	26	55.13	40	74.01	205	58.80	19	35.43	389
Dez.	6	55.53	51	71.96	169	58.99	31	31.54	374
	16	56.04	60	70.27	128	59.30	41	27.80	347
	26	56.64	68	68.99	82	59.71	49	24.33	309
	36	57.32		68.17		60.20		21.24	
Mittl. Ort		55.81		68.67		61.17		51.82	
sec δ, tg δ		2.727		−2.537		2.618		+2.420	
a, *a'*		+5.6		−13.3		+0.7		−13.3	
b, *b'*		+0.11		+ 0.75		−0.11		+ 0.75	

Tag		564) β Librae AR.		Dekl.		566) φ¹ Lupi AR.		Dekl.	
1947		$15^h\ 14^m$		$-9°\ 11'$		$15^h\ 18^m$		$-36°\ 4'$	
		s		"		s		"	
Jan.	1	7.147	309	15.84	171	23.703	365	3.93	66
	11	7.456	323	17.55	172	24.068	383	4.59	93
	21	7.779	328	19.27	168	24.451	389	5.52	115
	31	8.107	325	20.95	157	24.840	387	6.67	134
Febr.	10	8.432	314	22.52	142	25.227	375	8.01	149
	20	8.746	298	23.94	124	25.602	357	9.50	158
März	2	9.044	277	25.18	102	25.959	334	11.08	164
	12	9.321	254	26.20	79	26.293	308	12.72	167
	22	9.575	228	26.99	57	26.601	279	14.39	166
April	1	9.803	201	27.56	36	26.880	248	16.05	164
	11	10.004	174	27.92	17	27.128	216	17.69	158
	21	10.178	146	28.09	1	27.344	182	19.27	152
Mai	1	10.324	117	28.10	13	27.526	147	20.79	144
	11	10.441	89	27.97	24	27.673	111	22.23	135
	20	11 10.530	59	27.73	31	12 27.784	74	23.58	124
	30	10.589	30	27.42	37	27.858	36	24.82	111
Juni	9	10.619	0	27.05	41	27.894	1	25.93	96
	19	10.619	29	26.64	42	27.893	39	26.89	79
	29	10.590	57	26.22	42	27.854	75	27.68	61
Juli	9	10.533	82	25.80	42	27.779	108	28.29	40
	19	10.451	105	25.38	41	27.671	136	28.69	19
	29	10.346	124	24.97	38	27.535	160	28.88	3
Aug.	8	10.222	137	24.59	35	27.375	177	28.85	26
	18	10.085	143	24.24	31	27.198	184	28.59	47
	28	9.942	141	23.93	24	27.014	183	28.12	68
Sept.	7	9.801	132	23.69	16	26.831	170	27.44	86
	17	9.669	114	23.53	6	26.661	147	26.58	100
	27	9.555	87	23.47	7	26.514	113	25.58	108
Okt.	7	9.468	51	23.54	22	26.401	69	24.50	112
	17	9.417	10	23.76	40	26.332	18	23.38	109
	27	9.407	38	24.16	60	26.314	40	22.29	100
Nov.	6	9.445	89	24.76	82	26.354	102	21.29	85
	16	9.534	139	25.58	103	26.456	163	20.44	64
	26	9.673	188	26.61	124	26.619	221	19.80	38
Dez.	6	9.861	231	27.85	142	26.840	273	19.42	11
	16	10.092	269	29.27	157	27.113	318	19.31	19
	26	10.361	299	30.84	167	27.431	353	19.50	48
	36	10.660		32.51		27.784		19.98	
Mittl. Ort		9.044		19.07		26.062		13.93	
sec δ, tg δ		1.013		−0.162		1.237		−0.728	
a, *a'*		+3.2		−13.3		+3.8		−13.0	
b, *b'*		+0.01		+ 0.75		+0.03		+ 0.76	

Tag	569) γ Ursae min. AR.		569) γ Ursae min. Dekl.		568) μ Bootis *pr* AR.		568) μ Bootis *pr* Dekl.		571) ι Draconis AR.		571) ι Draconis Dekl.		572) β Coronae bor. AR.		572) β Coronae bor. Dekl.	
1947	15ʰ 20ᵐ		+72° 0′		15ʰ 22ᵐ		+37° 33′		15ʰ 23ᵐ		+59° 8′		15ʰ 25ᵐ		+29° 16′	
	s		″		s		″		s		″		s		″	
Jan. 1	45.12	63	68.25	280	27.445	322	34.77	285	42.754	421	52.00	294	36.769	305	67.58	275
11	45.75	70	65.45	228	27.767	347	31.92	247	43.175	465	49.06	245	37.074	327	64.83	242
21	46.45	75	63.17	167	28.114	362	29.45	200	43.640	495	46.61	187	37.401	339	62.41	202
31	47.20	78	61.50	100	28.476	365	27.45	146	44.135	507	44.74	124	37.740	342	60.39	155
Febr. 10	47.98	78	60.50	32	28.841	359	25.99	89	44.642	504	43.50	57	38.082	336	58.84	103
20	48.76	76	60.18	35	29.200	343	25.10	30	45.146	487	42.93	10	38.418	321	57.81	48
März 2	49.52	70	60.53	100	29.543	320	24.80	29	45.633	454	43.03	76	38.739	300	57.33	5
12	50.22	63	61.53	160	29.863	292	25.09	83	46.087	410	43.79	136	39.039	275	57.38	56
22	50.85	54	63.13	212	30.155	258	25.92	133	46.497	358	45.15	189	39.314	245	57.94	103
April 1	51.39	44	65.25	254	30.413	221	27.25	175	46.855	297	47.04	234	39.559	213	58.97	143
11	51.83	32	67.79	285	30.634	182	29.00	209	47.152	232	49.38	268	39.772	179	60.40	176
21	52.15	21	70.64	305	30.816	142	31.09	233	47.384	165	52.06	290	39.951	144	62.16	201
Mai 1	52.36	8	73.69	314	30.958	102	33.42	248	47.549	96	54.96	303	40.095	108	64.17	217
11	52.44	4	76.83	310	31.060	61	35.90	254	47.645	27	57.99	304	40.203	73	66.34	225
20	[13] 52.40	15	79.93	297	[13] 31.121	22	38.44	251	[14] 47.672	38	61.03	294	[14] 40.276	37	68.59	224
30	52.25	26	82.90	275	1.14 3	17	40.95	239	47.634	102	63.97	277	40.313	2	70.83	215
Juni 9	51.99	36	85.65	244	31.126	55	43.34	220	47.532	161	66.74	249	40.315	32	72.98	200
19	51.63	45	88.09	206	31.071	90	45.54	194	47.371	215	69.23	215	40.283	64	74.98	180
29	51.18	52	90.15	163	30.981	122	47.48	164	47.156	263	71.38	176	40.219	95	76.78	154
Juli 9	50.66	58	91.78	116	30.859	151	49.12	130	46.893	303	73.14	132	40.124	122	78.32	124
19	50.08	64	92.94	65	30.708	175	50.42	91	46.590	336	74.46	84	40.002	147	79.56	92
29	49.44	66	93.59	13	30.533	195	51.33	51	46.254	361	75.30	34	39.855	166	80.48	56
Aug. 8	48.78	68	93.72	40	30.338	208	51.84	8	45.893	376	75.64	17	39.689	179	81.04	20
18	48.10	69	93.32	93	30.130	214	51.92	34	45.517	380	75.47	68	39.510	186	81.24	19
28	47.41	66	92.39	143	29.916	212	51.58	77	45.137	373	74.79	119	39.324	186	81.05	56
Sept. 7	46.75	63	90.96	193	29.704	201	50.81	120	44.764	355	73.60	168	39.138	177	80.49	95
17	46.12	58	89.03	238	29.503	181	49.61	161	44.409	324	71.92	214	38.961	159	79.54	132
27	45.54	51	86.65	280	29.322	152	48.00	200	44.085	282	69.78	257	38.802	132	78.22	169
Okt. 7	45.03	42	83.85	317	29.170	114	46.00	237	43.803	227	67.21	296	38.670	97	76.53	204
17	44.61	32	80.68	347	29.056	68	43.63	269	43.576	162	64.25	329	38.573	54	74.49	235
27	44.29	20	77.21	371	28.988	16	40.94	298	43.414	89	60.96	357	38.519	6	72.14	264
Nov. 6	44.09	8	73.50	386	28.972	41	37.96	321	43.325	8	57.39	375	38.513	46	69.50	287
16	44.01	6	69.64	392	29.013	100	34.75	336	43.317	77	53.64	385	38.559	102	66.63	304
26	44.07	19	65.72	388	29.113	158	31.39	342	43.394	162	49.79	386	38.661	156	63.59	314
Dez. 6	44.26	32	61.84	373	29.271	212	27.97	340	43.556	244	45.93	375	38.817	206	60.45	316
16	44.58	45	58.11	346	29.483	262	24.57	328	43.800	319	42.18	353	39.023	250	57.29	308
26	45.03	56	54.65	309	29.745	303	21.29	304	44.119	385	38.65	321	39.273	288	54.21	291
36	45.59		51.56		30.048		18.25		44.504		35.44		39.561		51.30	
Mittl. Ort	47.64		81.45		29.201		43.37		44.747		63.99		38.527		74.44	
sec δ, tg δ	3.240		+3.082		1.262		+0.769		1.950		+1.674		1.147		+0.561	
a, *a′*	−0.1		−12.8		+2.3		−12.7		+1.3		−12.6		+2.5		−12.5	
b, *b′*	−0.13		+ 0.77		−0.03		+ 0.77		−0.07		+ 0.78		−0.02		+ 0.78	

Scheinbare Sternörter 1947

Tag	573) ν^1 Bootis AR.	Diff.	573) Dekl.	Diff.	578) α Coronae bor. AR.	Diff.	578) Dekl.	Diff.	577) γ Librae AR.	Diff.	577) Dekl.	Diff.	1410) 115 G. Lupi AR.	Diff.	1410) Dekl.	Diff.
1947	$15^h\ 28^m$		$+41°\ 0'$		$15^h\ 32^m$		$+26°\ 53'$		$15^h\ 32^m$		$-14°\ 36'$		$15^h\ 32^m$		$-44°\ 13'$	
	s		"		s		"		s		"		s		"	
Jan. 1	59.616	325	37.04	293	24.742	298	24.75	273	31.359	306	47.30	142	30.953	394	3.54	19
11	59.941	354	34.11	253	25.040	320	22.02	243	31.665	324	48.72	149	31.347	417	3.73	51
21	60.295	371	31.58	204	25.360	333	19.59	205	31.989	332	50.21	150	31.764	427	4.24	81
31	60.666	377	29.54	149	25.693	336	17.54	160	32.321	331	51.71	146	32.191	428	5.05	107
Febr. 10	61.043	372	28.05	90	26.029	332	15.94	110	32.652	324	53.17	137	32.619	420	6.12	130
20	61.415	358	27.15	29	26.361	318	14.84	58	32.976	310	54.54	124	33.039	404	7.42	149
März 2	61.773	336	26.86	32	26.679	299	14.26	5	33.286	292	55.78	109	33.443	382	8.91	163
12	62.109	307	27.18	88	26.978	275	14.21	45	33.578	271	56.87	91	33.825	355	10.54	175
22	62.416	273	28.06	140	27.253	248	14.66	91	33.849	248	57.78	74	34.180	324	12.29	182
April 1	62.689	234	29.46	184	27.501	217	15.57	131	34.097	222	58.52	56	34.504	292	14.11	186
11	62.923	194	31.30	218	27.718	185	16.88	165	34.319	196	59.08	40	34.796	256	15.97	188
21	63.117	152	33.48	245	27.903	151	18.53	190	34.515	168	59.48	27	35.052	219	17.85	187
Mai 1	63.269	109	35.93	260	28.054	117	20.43	207	34.683	140	59.75	14	35.271	180	19.72	183
11	63.378	65	38.53	266	28.171	82	22.50	216	34.823	111	59.89	4	35.451	138	21.55	176
20	[15] 63.443	22	41.19	263	[16] 28.253	47	24.66	217	[16] 34.934	80	59.93	4	[16] 35.589	96	23.31	168
30	63.465	18	43.82	251	28.300	13	26.83	209	35.014	48	59.89	10	35.685	51	24.99	155
Juni 9	63.447	59	46.33	232	28.313	21	28.92	197	35.062	17	59.79	15	35.736	7	26.54	140
19	63.388	97	48.65	205	28.292	53	30.89	177	35.079	15	59.64	19	35.743	38	27.94	122
29	63.291	131	50.70	173	28.239	85	32.66	154	35.064	45	59.45	22	35.705	80	29.16	101
Juli 9	63.160	162	52.43	138	28.154	113	34.20	126	35.019	75	59.23	25	35.625	120	30.17	76
19	62.998	189	53.81	98	28.041	138	35.46	95	34.944	100	58.98	27	35.505	156	30.93	50
29	62.809	210	54.79	55	27.903	158	36.41	61	34.844	123	58.71	29	35.349	184	31.43	22
Aug. 8	62.599	225	55.34	12	27.745	173	37.02	26	34.721	139	58.42	31	35.165	205	31.65	7
18	62.374	231	55.46	33	27.572	181	37.28	10	34.582	149	58.11	32	34.960	217	31.58	36
28	62.143	231	55.13	79	27.391	181	37.18	47	34.433	150	57.79	31	34.743	217	31.22	65
Sept. 7	61.912	220	54.34	122	27.210	174	36.71	83	34.283	143	57.48	28	34.526	206	30.57	91
17	61.692	200	53.12	165	27.036	158	35.88	121	34.140	127	57.20	23	34.320	182	29.66	113
27	61.492	170	51.47	206	26.878	132	34.67	156	34.013	101	56.97	16	34.138	145	28.53	130
Okt. 7	61.322	132	49.41	245	26.746	98	33.11	191	33.912	67	56.81	5	33.993	98	27.23	142
17	61.190	85	46.96	278	26.648	57	31.20	222	33.845	25	56.76	8	33.895	43	25.81	147
27	61.105	31	44.18	308	26.591	9	28.98	251	33.820	22	56.84	25	33.852	21	24.34	143
Nov. 6	61.074	27	41.10	330	26.582	42	26.47	275	33.842	74	57.09	44	33.873	90	22.91	133
16	61.101	88	37.80	346	26.624	96	23.72	293	33.916	126	57.53	64	33.963	159	21.58	117
26	61.189	150	34.34	353	26.720	149	20.79	305	34.042	176	58.17	85	34.122	224	20.41	94
Dez. 6	61.339	208	30.81	349	26.869	199	17.74	308	34.218	222	59.02	105	34.346	284	19.47	65
16	61.547	258	27.32	337	27.068	244	14.66	302	34.440	263	60.07	122	34.630	337	18.82	35
26	61.805	304	23.95	313	27.312	280	11.64	287	34.703	294	61.29	136	34.967	378	18.47	2
36	62.109		20.82		27.592		8.77		34.997		62.65		35.345		18.45	
Mittl. Ort	61.421		46.23		26.532		31.10		33.403		51.22		33.651		14.38	
sec δ, tg δ	1.325		+0.870		1.121		+0.507		1.033		−0.261		1.395		−0.973	
a, a'	+2.2		−12.3		+2.5		−12.0		+3.4		−12.0		+4.1		−12.0	
b, b'	−0.04		+ 0.79		−0.02		+ 0.80		+0.01		+ 0.80		+0.04		+ 0.80	

Tag		582) α Serpentis AR.		582) α Serpentis Dekl.		583) β Serpentis AR.		583) β Serpentis Dekl.		590) ζ Ursae min. AR.		590) ζ Ursae min. Dekl.		584) κ Serpentis AR.		584) κ Serpentis Dekl.	
1947		$15^h 41^m$		+6° 35′		$15^h 43^m$		+15° 34′		$15^h 45^m$		+77° 57′		$15^h 46^m$		+18° 17′	
		s		″		s		″		s		″		s		″	
Jan.	1	37.400	284	26.20	219	42.510	283	67.31	247	50.60	77	17.64	295	19.261	282	70.09	256
	11	37.684	304	24.01	206	42.793	304	64.84	227	51.37	91	14.69	245	19.543	303	67.53	233
	21	37.988	314	21.95	186	43.097	316	62.57	200	52.28	101	12.24	189	19.846	317	65.20	204
	31	38.302	317	20.09	160	43.413	320	60.57	164	53.29	108	10.35	125	20.163	322	63.16	166
Febr.	10	38.619	311	18.49	129	43.733	315	58.93	124	54.37	111	9.10	58	20.485	318	61.50	124
	20	38.930	301	17.20	94	44.048	306	57.69	82	55.48	110	8.52	10	20.803	308	60.26	78
März	2	39.231	284	16.26	57	44.354	289	56.87	37	56.58	105	8.62	77	21.111	292	59.48	32
	12	39.515	264	15.69	21	44.643	268	56.50	6	57.63	95	9.39	138	21.403	272	59.16	14
	22	39.779	242	15.48	14	44.911	245	56.56	47	58.58	84	10.77	193	21.675	248	59.30	56
April	1	40.021	216	15.62	44	45.156	219	57.03	84	59.42	70	12.70	238	21.923	222	59.86	94
	11	40.237	191	16.06	72	45.375	192	57.87	114	60.12	54	15.08	273	22.145	194	60.80	126
	21	40.428	163	16.78	93	45.567	162	59.01	139	60.66	36	17.81	298	22.339	164	62.06	152
Ma	1	40.591	134	17.71	109	45.729	132	60.40	156	61.02	18	20.79	312	22.503	133	63.58	169
	11	40.725	105	18.80	120	45.861	101	61.96	166	61.20	0	23.91	313	22.636	102	65.27	181
	20	[18] 40.830	74	20.00	126	[19] 45.962	69	63.62	171	[19] 61.20	18	27.04	305	[19] 22.738	69	67.08	184
	30	40.904	44	21.26	125	46.031	37	65.33	169	61.02	35	30.09	286	22.807	36	68.92	181
Juni	9	40.948	13	22.51	122	46.068	5	67.02	161	60.67	51	32.95	260	22.843	3	70.73	173
	19	40.961	18	23.73	114	46.073	26	68.63	148	60.16	65	35.55	226	22.846	29	72.46	159
	29	40.943	48	24.87	102	46.047	58	70.11	132	59.51	78	37.81	186	22.817	60	74.05	141
Juli	9	40.895	77	25.89	89	45.989	86	71.43	112	58.73	88	39.67	140	22.757	89	75.46	119
	19	40.818	102	26.78	73	45.903	112	72.55	89	57.85	97	41.07	92	22.668	116	76.65	95
	29	40.716	123	27.51	56	45.791	134	73.44	64	56.88	103	41.99	42	22.552	138	77.60	67
Aug.	8	40.593	140	28.07	37	45.657	150	74.08	38	55.85	107	42.41	11	22.414	155	78.27	39
	18	40.453	150	28.44	18	45.507	161	74.46	10	54.78	108	42.30	63	22.259	166	78.66	9
	28	40.303	154	28.62	4	45.346	164	74.56	18	53.70	107	41.67	114	22.093	169	78.75	21
Sept.	7	40.149	148	28.58	26	45.182	159	74.38	48	52.63	103	40.53	164	21.924	164	78.54	54
	17	40.001	134	28.32	49	45.023	144	73.90	78	51.60	98	38.89	211	21.760	150	78.00	85
	27	39.867	111	27.83	72	44.879	122	73.12	107	50.62	88	36.78	255	21.610	128	77.15	116
Okt.	7	39.756	80	27.11	97	44.757	91	72.05	137	49.74	76	34.23	294	21.482	97	75.99	148
	17	39.676	42	26.14	121	44.666	52	70.68	166	48.98	63	31.29	327	21.385	58	74.51	177
	27	39.634	3	24.93	146	44.614	7	69.02	192	48.35	46	28.02	355	21.327	14	72.74	205
Nov.	6	39.637	52	23.47	168	44.607	41	67.10	217	47.89	29	24.47	374	21.313	36	70.69	230
	16	39.689	102	21.79	189	44.648	92	64.93	237	47.60	10	20.73	384	21.349	88	68.39	250
	26	39.791	150	19.90	206	44.740	143	62.56	252	47.50	10	16.89	385	21.437	138	65.89	265
Dez.	6	39.941	196	17.84	217	44.883	190	60.04	261	47.60	30	13.04	374	21.575	186	63.24	272
	16	40.137	236	15.67	224	45.073	232	57.43	262	47.90	49	9.30	353	21.761	229	60.52	273
	26	40.373	270	13.43	223	45.305	267	54.81	256	48.39	67	5.77	321	21.990	265	57.79	265
	36	40.643		11.20		45.572		52.25		49.06		2.56		22.255		55.14	
Mittl. Ort		39.292		27.92		44.369		71.19		54.26		30.31		21.123		74.61	
sec δ, tg δ		1.007		+0.116		1.038		+0.279		4.793		+4.688		1.053		+0.331	
a, *a′*		+2.9		−11.4		+2.8		−11.2		−2.1		−11.1		+2.7		−11.0	
b, *b′*		0.00		+ 0.82		−0.01		+ 0.83		−0.17		+ 0.83		−0.01		+ 0.83	

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Tag	585) μ Serpentis				588) ε Serpentis				589) β Triang. austr.				593) ε Coronae bor.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$15^h 46^m$		$-3° 16'$		$15^h 48^m$		$+4° 37'$		$15^h 50^m$		$-63° 15'$		$15^h 55^m$		$+27° 1'$	
	s		"		s		"		s		"		s		"	
Jan. 1	49.077	286	9.42	182	8.347	280	68.02	211	23.00	56	56.55	79	21.580	279	42.26	280
11	49.363	304	11.24	178	8.627	301	65.91	201	23.56	59	55.76	35	21.859	306	39.46	252
21	49.667	316	13.02	168	8.928	312	63.90	182	24.15	63	55.41	7	22.165	323	36.94	216
31	49.983	318	14.70	152	9.240	316	62.08	159	24.78	64	55.48	49	22.488	331	34.78	172
Febr. 10	50.301	313	16.22	130	9.556	311	60.49	129	25.42	64	55.97	88	22.819	330	33.06	123
20	50.614	303	17.52	107	9.867	302	59.20	97	26.06	62	56.85	126	23.149	323	31.83	71
März 2	50.917	288	18.59	79	10.169	286	58.23	62	26.68	59	58.11	158	23.472	307	31.12	17
12	51.205	269	19.38	51	10.455	268	57.61	27	27.27	56	59.69	187	23.779	287	30.95	34
22	51.474	246	19.89	24	10.723	245	57.34	7	27.83	52	61.56	211	24.066	263	31.29	83
April 1	51.720	224	20.13	1	10.968	222	57.41	36	28.35	47	63.67	232	24.329	235	32.12	125
11	51.944	199	20.12	22	11.190	197	57.77	63	28.82	41	65.99	247	24.564	206	33.37	161
21	52.143	172	19.90	41	11.387	169	58.40	84	29.23	35	68.46	257	24.770	173	34.98	190
Mai 1	52.315	145	19.49	56	11.556	142	59.24	100	29.58	29	71.03	264	24.943	140	36.88	210
11	52.460	116	18.93	66	11.698	112	60.24	111	29.87	22	73.67	265	25.083	105	38.98	221
20*)	19 52.576	86	18.27	73	20 11.810	82	61.35	117	20 30.09	15	76.32	261	22 25.188	69	41.19	224
30	52.662	55	17.54	75	11.892	51	62.52	117	30.24	7	78.93	251	25.257	34	43.43	221
Juni 9	52.717	24	16.79	76	11.943	20	63.69	115	30.31	0	81.44	236	25.291	3	45.64	209
19	52.741	8	16.03	73	11.963	12	64.84	108	30.31	8	83.80	214	25.288	37	47.73	192
29	52.733	39	15.30	67	11.951	43	65.92	98	30.23	15	85.94	188	25.251	71	49.65	169
Juli 9	52.694	68	14.63	62	11.908	71	66.90	85	30.08	22	87.82	157	25.180	103	51.34	143
19	52.626	95	14.01	53	11.837	98	67.75	72	29.86	27	89.39	121	25.077	131	52.77	112
29	52.531	117	13.48	45	11.739	121	68.47	55	29.59	33	90.60	81	24.946	156	53.89	80
Aug. 8	52.414	136	13.03	35	11.618	138	69.02	39	29.26	36	91.41	38	24.790	174	54.69	44
18	52.278	147	12.68	24	11.480	150	69.41	20	28.90	38	91.79	6	24.616	186	55.13	8
28	52.131	150	12.44	12	11.330	154	69.61	1	28.52	39	91.73	51	24.430	190	55.21	29
Sept. 7	51.981	147	12.32	1	11.176	149	69.62	19	28.13	37	91.22	93	24.240	186	54.92	67
17	51.834	133	12.33	16	11.027	136	69.43	40	27.76	34	90.29	133	24.054	174	54.25	105
27	51.701	110	12.49	31	10.891	115	69.03	63	27.42	28	88.96	168	23.880	151	53.20	142
Okt. 7	51.591	79	12.80	50	10.776	84	68.40	86	27.14	22	87.28	196	23.729	120	51.78	177
17	51.512	41	13.30	69	10.692	46	67.54	110	26.92	14	85.32	216	23.609	81	50.01	210
27	51.471	4	13.99	89	10.646	2	66.44	133	26.78	3	83.16	227	23.528	35	47.91	241
Nov. 6	51.475	53	14.88	110	10.644	47	65.11	155	26.75	7	80.89	228	23.493	16	45.50	267
16	51.528	103	15.98	130	10.691	96	63.56	176	26.82	17	78.61	219	23.509	70	42.83	288
26	51.631	152	17.28	149	10.787	145	61.80	193	26.99	27	76.42	201	23.579	123	39.95	301
Dez. 6	51.783	198	18.77	164	10.932	192	59.87	206	27.26	37	74.41	175	23.702	174	36.94	308
16	51.981	238	20.41	175	11.124	232	57.81	214	27.63	46	72.66	143	23.876	220	33.86	305
26	52.219	272	22.16	181	11.356	266	55.67	214	28.09	52	71.23	104	24.096	261	30.81	292
36	52.491		23.97		11.622		53.53		28.61		70.19		24.357		27.89	
Mittl. Ort	51.061		9.95		10.277		69.42		27.10		69.11		23.470		48.63	
sec δ, tg δ	1.002		−0.057		1.003		+0.081		2.223		−1.986		1.123		+0.510	
a, *a′*	+3.1		−11.0		+3.0		−10.9		+5.3		−10.7		+2.5		−10.4	
b, *b′*	0.00		+ 0.84		0.00		+ 0.84		+0.07		+ 0.84		−0.02		+ 0.86	

*) Bei Stern 593) lies Mai 21.

Tag	594) δ Scorpii AR.		Dekl.		598) ϑ Draconis AR.		Dekl.		597) β Scorpii *pr* AR.		Dekl.		603) δ Ophiuchi AR.		Dekl.	
1947	$15^h\ 57^m$		−22° 28′		$16^h\ 0^m$		+58° 41′		$16^h\ 2^m$		−19° 39′		$16^h\ 11^m$		−3° 33′	
	s		″		s		″		s		″		s		″	
Jan. 1	9.412	306	16.22	95	51.212	362	71.51	321	18.801	297	39.31	105	31.816	269	33.89	173
11	9.718	326	17.17	107	51.574	416	68.30	278	19.098	318	40.36	115	32.085	292	35.62	171
21	10.044	339	18.24	116	51.990	457	65.52	226	19.416	331	41.51	120	32.377	307	37.33	161
31	10.383	343	19.40	120	52.447	482	63.26	166	19.747	337	42.71	121	32.684	314	38.94	145
Febr. 10	10.726	340	20.60	120	52.929	492	61.60	101	20.084	334	43.92	119	32.998	313	40.39	126
20	11.066	331	21.80	116	53.421	487	60.59	33	20.418	326	45.11	111	33.311	307	41.65	101
März 2	11.397	316	22.96	109	53.908	468	60.26	35	20.744	312	46.22	102	33.618	295	42.66	75
12	11.713	297	24.05	100	54.376	437	60.61	98	21.056	295	47.24	90	33.913	280	43.41	47
22	12.010	277	25.05	90	54.813	395	61.59	157	21.351	275	48.14	78	34.193	262	43.88	20
April 1	12.287	254	25.95	80	55.208	343	63.16	208	21.626	253	48.92	65	34.455	242	44.08	5
11	12.541	228	26.75	70	55.551	286	65.24	249	21.879	228	49.57	53	34.697	219	44.03	27
21	12.769	202	27.45	60	55.837	224	67.73	281	22.107	203	50.10	42	34.916	194	43.76	46
Mai 1	12.971	172	28.05	52	56.061	157	70.54	301	22.310	174	50.52	34	35.110	167	43.30	60
11	13.143	142	28.57	44	56.218	90	73.55	310	22.484	144	50.86	26	35.277	140	42.70	71
21	13.285	110	29.01	37	56.308	22	76.65	310	22.628	113	51.12	19	35.417	109	41.99	77
	22				23				23				26			
30	13.395	76	29.38	32	56.330	44	79.75	298	22.741	79	51.31	14	35.526	78	41.22	80
Juni 9	13.471	40	29.70	25	56.286	108	82.73	279	22.820	45	51.45	10	35.604	45	40.42	79
19	13.511	5	29.95	20	56.178	169	85.52	251	22.865	10	51.55	6	35.649	11	39.63	76
29	13.516	30	30.15	14	56.009	224	88.03	217	22.875	26	51.61	1	35.660	22	38.87	71
Juli 9	13.486	65	30.29	7	55.785	274	90.20	177	22.849	60	51.62	3	35.638	54	38.16	64
19	13.421	95	30.36	0	55.511	317	91.97	133	22.789	90	51.59	8	35.584	84	37.52	55
29	13.326	123	30.36	9	55.194	351	93.30	85	22.699	118	51.51	13	35.500	111	36.97	46
Aug. 8	13.203	144	30.27	17	54.843	376	94.15	35	22.581	140	51.38	18	35.389	132	36.51	36
18	13.059	158	30.10	24	54.467	391	94.50	16	22.441	155	51.20	23	35.257	147	36.15	25
28	12.901	164	29.86	31	54.076	395	94.34	67	22.286	161	50.97	27	35.110	156	35.90	13
Sept. 7	12.737	160	29.55	37	53.681	386	93.67	118	22.125	159	50.70	30	34.954	154	35.77	1
17	12.577	147	29.18	41	53.295	365	92.49	168	21.966	146	50.40	32	34.800	145	35.76	14
27	12.430	123	28.77	42	52.930	331	90.81	214	21.820	125	50.08	30	34.655	126	35.90	29
Okt. 7	12.307	90	28.35	39	52.599	285	88.67	258	21.695	92	49.78	25	34.529	97	36.19	46
17	12.217	49	27.96	32	52.314	227	86.09	297	21.603	52	49.53	18	34.432	61	36.65	64
27	12.168	0	27.64	23	52.087	158	83.12	330	21.551	5	49.35	6	34.371	19	37.29	83
Nov. 6	12.168	52	27.41	8	51.929	81	79.82	357	21.546	46	49.29	8	34.352	29	38.12	103
16	12.220	107	27.33	9	51.848	1	76.25	374	21.592	100	49.37	25	34.381	79	39.15	122
26	12.327	161	27.42	27	51.849	86	72.51	383	21.692	152	49.62	43	34.460	129	40.37	139
Dez. 6	12.488	210	27.69	47	51.935	170	68.68	381	21.844	201	50.05	62	34.589	176	41.76	155
16	12.698	254	28.16	67	52.105	249	64.87	368	22.045	245	50.67	80	34.765	218	43.31	166
26	12.952	290	28.83	85	52.354	323	61.19	342	22.290	282	51.47	96	34.983	254	44.97	172
36	13.242		29.68		52.677		57.77		22.572		52.43		35.237		46.69	
Mittl. Ort	11.681		20.79		53.464		82.49		21.044		42.99		33.896		33.66	
sec δ, tg δ	1.082		−0.414		1.925		+1.645		1.062		−0.357		1.002		−0.062	
a, *a′*	+3.5		−10.2		+1.2		−10.0		+3.5		−9.8		+3.1		−9.1	
b, *b′*	+0.01		+ 0.86		−0.05		+ 0.87		+0.01		+0.87		0.00		+0.89	

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Tag	606) 19 Ursae min.				605) ε Ophiuchi				604) γ^2 Normae				608) τ Herculis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$16^h\ 12^m$		+76° 0′		$16^h\ 15^m$		−4° 33′		$16^h\ 15^m$		−50° 1′		$16^h\ 18^m$		+46° 25′	
	s		″		s		″		s		″		s		″	
Jan. 1	14.62	59	30.91	318	28.722	267	53.36	168	48.619	393	30.63	51	6.610	289	70.13	324
11	15.21	73	27.73	276	28.989	291	55.04	165	49.012	429	30.12	20	6.899	330	66.89	288
21	15.94	83	24.97	222	29.280	306	56.69	156	49.441	453	29.92	$\overline{12}$	7.229	361	64.01	243
31	16.77	91	22.75	161	29.586	314	58.25	143	49.894	465	30.04	42	7.590	382	61.58	189
Febr. 10	17.68	95	21.14	96	29.900	314	59.68	123	50.359	468	30.46	70	7.972	391	59.69	130
20	18.63	96	20.18	28	30.214	308	60.91	100	50.827	460	31.16	95	8.363	389	58.39	67
März 2	19.59	93	19.90	$\overline{40}$	30.522	297	61.91	74	51.287	447	32.11	117	8.752	378	57.72	2
12	20.52	88	20.30	105	30.819	283	62.65	48	51.734	427	33.28	136	9.130	358	57.70	$\overline{61}$
22	21.40	79	21.35	163	31.102	265	63.13	22	52.161	401	34.64	152	9.488	330	58.31	119
April 1	22.19	68	22.98	214	31.367	245	63.35	$\overline{2}$	52.562	372	36.16	166	9.818	297	59.50	170
11	22.87	56	25.12	256	31.612	223	63.33	24	52.934	338	37.82	176	10.115	258	61.20	214
21	23.43	41	27.68	287	31.835	198	63.09	42	53.272	300	39.58	184	10.373	215	63.34	249
Mai 1	23.84	26	30.55	307	32.033	172	62.67	57	53.572	259	41.42	189	10.588	170	65.83	274
11	24.10	11	33.62	316	32.205	144	62.10	66	53.831	214	43.31	191	10.758	122	68.57	288
21	24.21	$\overline{5}$	36.78	315	32.349	115	61.44	73	54.045	165	45.22	189	10.880	72	71.45	293
30	(26) 24.16	20	39.93	303	(27) 32.464	82	60.71	76	(27) 54.210	114	47.11	185	(27) 10.952	23	74.38	287
Juni 9	23.96	34	42.96	283	32.546	49	59.95	76	54.324	60	48.96	175	10.975	$\overline{26}$	77.25	274
19	23.62	48	45.79	254	32.595	16	59.19	72	54.384	5	50.71	163	10.949	74	79.99	253
29	23.14	60	48.33	219	32.611	$\overline{19}$	58.47	68	54.389	$\overline{48}$	52.34	146	10.875	119	82.52	224
Juli 9	22.54	70	50.52	178	32.592	51	57.79	61	54.341	100	53.80	125	10.756	161	84.76	190
19	21.84	79	52.30	132	32.541	82	57.18	54	54.241	148	55.05	100	10.595	199	86.66	151
29	21.05	86	53.62	83	32.459	109	56.64	44	54.093	189	56.05	71	10.396	231	88.17	109
Aug. 8	20.19	92	54.45	33	32.350	130	56.20	36	53.904	223	56.76	41	10.165	256	89.26	64
18	19.27	94	54.78	$\overline{20}$	32.220	147	55.84	25	53.681	246	57.17	8	9.909	274	89.90	17
28	18.33	94	54.58	71	32.073	156	55.59	14	53.435	257	57.25	$\overline{26}$	9.635	281	90.07	$\overline{31}$
Sept. 7	17.39	93	53.87	123	31.917	155	55.45	3	53.178	255	56.99	59	9.354	280	89.76	79
17	16.46	89	52.64	172	31.762	146	55.42	$\overline{10}$	52.923	239	56.40	89	9.074	268	88.97	127
27	15.57	83	50.92	218	31.616	128	55.52	25	52.684	208	55.51	117	8.806	244	87.70	173
Okt. 7	14.74	74	48.74	262	31.488	100	55.77	40	52.476	163	54.34	138	8.562	211	85.97	216
17	14.00	62	46.12	301	31.388	64	56.17	58	52.313	107	52.96	155	8.351	167	83.81	257
27	13.38	50	43.11	333	31.324	21	56.75	77	52.206	42	51.41	164	8.184	114	81.24	293
Nov. 6	12.88	35	39.78	359	31.303	$\overline{27}$	57.52	95	52.164	$\overline{31}$	49.77	165	8.070	54	78.31	322
16	12.53	18	36.19	376	31.330	76	58.47	115	52.195	107	48.12	158	8.016	$\overline{9}$	75.09	345
26	12.35	1	32.43	384	31.406	126	59.62	132	52.302	181	46.54	145	8.025	75	71.64	360
Dez. 6	12.34	$\overline{16}$	28.59	380	31.532	173	60.94	147	52.483	252	45.09	125	8.100	141	68.04	364
16	12.50	34	24.79	366	31.705	216	62.41	159	52.735	316	43.84	100	8.241	203	64.40	358
26	12.84	50	21.13	340	31.921	252	64.00	166	53.051	370	42.84	71	8.444	259	60.82	340
36	13.34		17.73		32.173		65.66		53.421		42.13		8.703		57.42	
Mittl. Ort	18.31		42.55		30.825		53.21		51.839		39.09		8.715		79.31	
sec δ, tg δ	4.137		+4.014		1.003		−0.080		1.557		−1.193		1.451		+1.052	
a, *a′*	−1.7		−9.1		+3.2		−8.8		+4.5		−8.8		+1.8		−8.6	
b, *b′*	−0.12		+0.89		0.00		+0.90		+0.03		+0.90		−0.03		+0.90	

Tag	609) γ Herculis AR.	Δ	609) γ Herculis Dekl.	Δ	611) γ Apodis AR.	Δ	611) γ Apodis Dekl.	Δ	616) α Scorpii AR.	Δ	616) α Scorpii Dekl.	Δ	618) β Herculis AR.	Δ	618) β Herculis Dekl.	Δ
1947	$16^h\ 19^m$		$+19°\ 16'$		$16^h\ 25^m$		$-78°\ 46'$		$16^h\ 26^m$		$-26°\ 18'$		$16^h\ 27^m$		$+21°\ 35'$	
	s		"		s		"		s		"		s		"	
Jan. 1	32.807	256	29.81	261	6.05	106	45.27	177	6.754	292	54.34	57	54.353	250	68.34	270
11	33.063	283	27.20	241	7.11	119	43.50	134	7.046	320	54.91	71	54.603	279	65.64	249
21	33.346	303	24.79	213	8.30	129	42.16	87	7.366	337	55.62	82	54.882	299	63.15	219
31	33.649	313	22.66	177	9.59	135	41.29	38	7.703	346	56.44	89	55.181	312	60.96	182
Febr. 10	33.962	316	20.89	135	10.94	139	40.91	$\overline{10}$	8.049	349	57.33	94	55.493	317	59.14	139
20	34.278	312	19.54	89	12.33	139	41.01	58	8.398	344	58.27	94	55.810	314	57.75	92
März 2	34.590	302	18.65	41	13.72	136	41.59	104	8.742	334	59.21	92	56.124	306	56.83	42
12	34.892	287	18.24	$\overline{6}$	15.08	132	42.63	145	9.076	321	60.13	87	56.430	293	56.41	$\overline{8}$
22	35.179	268	18.30	51	16.40	123	44.08	184	9.397	303	61.00	82	56.723	275	56.49	55
April 1	35.447	246	18.81	92	17.63	114	45.92	218	9.700	283	61.82	76	56.998	253	57.04	97
11	35.693	222	19.73	127	18.77	102	48.10	248	9.983	261	62.58	70	57.251	229	58.01	135
21	35.915	194	21.00	156	19.79	89	50.58	272	10.244	236	63.28	65	57.480	201	59.36	165
Mai 1	36.109	164	22.56	178	20.68	74	53.30	290	10.480	207	63.93	60	57.681	172	61.01	188
11	36.273	133	24.34	191	21.42	58	56.20	304	10.687	177	64.53	56	57.853	139	62.89	203
21	36.406	100	26.25	199	22.00	40	59.24	309	10.864	143	65.09	52	57.992	106	64.92	211
	28				29				29				30			
30	36.506	65	28.24	198	22.40	22	62.33	308	11.007	108	65.61	49	58.098	71	67.03	211
Juni 9	36.571	31	30.22	191	22.62	4	65.41	301	11.115	70	66.10	45	58.169	35	69.14	204
19	36.602	$\overline{5}$	32.13	179	22.66	$\overline{15}$	68.42	285	11.185	31	66.55	40	58.204	$\overline{2}$	71.18	192
29	36.597	40	33.92	162	22.51	33	71.27	262	11.216	$\overline{8}$	66.95	35	58.202	37	73.10	174
Juli 9	36.557	74	35.54	141	22.18	50	73.89	233	11.208	46	67.30	29	58.165	73	74.84	152
19	36.483	104	36.95	117	21.68	65	76.22	195	11.162	83	67.59	20	58.092	105	76.36	126
29	36.379	131	38.12	89	21.03	78	78.17	153	11.079	115	67.79	12	57.987	133	77.62	98
Aug. 8	36.248	154	39.01	60	20.25	88	79.70	105	10.964	141	67.91	2	57.854	157	78.60	67
18	36.094	169	39.61	29	19.37	96	80.75	53	10.823	162	67.93	$\overline{9}$	57.697	174	79.27	34
28	35.925	178	39.90	$\overline{3}$	18.41	98	81.28	$\overline{1}$	10.661	173	67.84	19	57.523	184	79.61	$\overline{1}$
Sept. 7	35.747	179	39.87	35	17.43	98	81.27	55	10.488	174	67.65	29	57.339	186	79.62	33
17	35.568	170	39.52	68	16.45	92	80.72	108	10.314	165	67.36	38	57.153	178	79.29	69
27	35.398	152	38.84	102	15.53	83	79.64	157	10.149	146	66.98	44	56.975	161	78.60	103
Okt. 7	35.246	124	37.82	134	14.70	70	78.07	201	10.003	115	66.54	48	56.814	135	77.57	137
17	35.122	89	36.48	165	14.00	53	76.06	237	9.888	75	66.06	46	56.679	100	76.20	170
27	35.033	47	34.83	195	13.47	33	73.69	264	9.813	29	65.60	42	56.579	58	74.50	201
Nov. 6	34.986	$\overline{1}$	32.88	221	13.14	11	71.05	280	9.784	$\overline{24}$	65.18	34	56.521	11	72.49	229
16	34.987	51	30.67	244	13.03	$\overline{12}$	68.25	285	9.808	80	64.84	21	56.510	$\overline{40}$	70.20	252
26	35.038	102	28.23	261	13.15	35	65.40	280	9.888	135	64.63	6	56.550	91	67.68	269
Dez. 6	35.140	152	25.62	272	13.50	57	62.60	263	10.023	187	64.57	$\overline{11}$	56.641	142	64.99	281
16	35.292	198	22.90	274	14.07	78	59.97	237	10.210	235	64.68	28	56.783	188	62.18	283
26	35.490	237	20.16	269	14.85	97	57.60	203	10.445	275	64.96	46	56.971	230	59.35	277
36	35.727		17.47		15.82		55.57		10.720		65.42		57.201		56.58	
Mittl. Ort	34.794		34.76		15.15		55.96		9.208		57.98		56.367		73.73	
sec δ, tg δ	1.059		+0.350		5.140		−5.042		1.116		−0.495		1.076		+0.396	
a, *a′*	+2.7		−8.5		+9.2		−8.1		+3.7		−8.0		+2.6		−7.8	
b, *b′*	−0.01		+0.91		+0.14		+0.92		+0.01		+0.92		−0.01		+0.92	

Scheinbare Sternörter 1947

Tag		619) A Draconis				1432) Pi 16h140 Draco				621) σ Herculis				622) ζ Ophiuchi			
		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947		$16^h\ 28^m$		$+68°\ 52'$		$16^h\ 31^m$		$+60°\ 55'$		$16^h\ 32^m$		$+42°\ 32'$		$16^h\ 34^m$		$-10°\ 27'$	
		s		"		s		"		s		"		s		"	
Jan.	1	1.55	40	47.51	336	37.82	33	51.89	340	21.406	263	34.96	324	11.999	260	40.62	132
	11	1.95	49	44.15	297	38.15	39	48.49	303	21.669	305	31.72	292	12.259	286	41.94	135
	21	2.44	57	41.18	247	38.54	45	45.46	255	21.974	335	28.80	251	12.545	304	43.29	131
	31	3.01	62	38.71	188	38.99	48	42.91	199	22.309	356	26.29	200	12.849	314	44.60	123
Febr.	10	3.63	66	36.83	124	39.47	51	40.92	135	22.665	368	24.29	144	13.163	317	45.83	110
	20	4.29	66	35.59	56	39.98	51	39.57	68	23.033	369	22.85	83	13.480	314	46.93	94
März	2	4.95	66	35.03	$\overline{13}$	40.49	51	38.89	0	23.402	361	22.02	20	13.794	306	47.87	75
	12	5.61	62	35.16	78	41.00	48	38.89	67	23.763	346	21.82	$\overline{42}$	14.100	295	48.62	54
	22	6.23	57	35.94	141	41.48	45	39.56	129	24.109	323	22.24	100	14.395	280	49.16	33
April	1	6.80	51	37.35	196	41.93	40	40.85	185	24.432	295	23.24	152	14.675	262	49.49	14
	11	7.31	43	39.31	241	42.33	35	42.70	231	24.727	262	24.76	198	14.937	242	49.63	$\overline{4}$
	21	7.74	35	41.72	278	42.68	28	45.01	269	24.989	224	26.74	234	15.179	219	49.59	18
Mai	1	8.09	24	44.50	303	42.96	22	47.70	296	25.213	183	29.08	262	15.398	194	49.41	31
	11	8.33	15	47.53	317	43.18	14	50.66	313	25.396	140	31.70	278	15.592	166	49.10	39
	21	8.48	4	50.70	321	43.32	7	53.79	318	25.536	94	34.48	286	15.758	136	48.71	44
	30*)	[30] 8.52	$\overline{5}$	53.91	314	43.39	0	56.97	313	25.630	48	37.34	284	15.894	104	48.27	47
Juni	9	8.47	16	57.05	298	[31] 43.39	8	60.10	299	[31] 25.678	2	40.18	274	[31] 15.998	70	47.80	48
	19	8.31	25	60.03	273	43.31	14	63.09	277	25.680	$\overline{45}$	42.92	255	16.068	34	47.32	46
	29	8.06	34	62.76	242	43.17	21	65.86	247	25.635	90	45.47	230	16.102	$\overline{3}$	46.86	43
Juli	9	7.72	41	65.18	204	42.96	27	68.33	210	25.545	131	47.77	199	16.099	37	46.43	40
	19	7.31	48	67.22	161	42.69	32	70.43	169	25.414	170	49.76	163	16.062	71	46.03	35
	29	6.83	53	68.83	113	42.37	37	72.12	124	25.244	202	51.39	124	15.991	101	45.68	31
Aug.	8	6.30	58	69.96	64	42.00	41	73.36	75	25.042	230	52.63	80	15.890	127	45.37	26
	18	5.72	61	70.60	13	41.59	42	74.11	24	24.812	250	53.43	36	15.763	146	45.11	21
	28	5.11	62	70.73	$\overline{40}$	41.17	44	74.35	$\overline{27}$	24.562	260	53.79	$\overline{10}$	15.617	158	44.90	16
Sept.	7	4.49	62	70.33	92	40.73	44	74.08	79	24.302	262	53.69	58	15.459	160	44.74	10
	17	3.87	59	69.41	143	40.29	43	73.29	130	24.040	253	53.11	104	15.299	154	44.64	2
	27	3.28	56	67.98	192	39.86	39	71.99	180	23.787	234	52.07	149	15.145	138	44.62	$\overline{6}$
Okt.	7	2.72	50	66.06	239	39.47	36	70.19	227	23.553	204	50.58	194	15.007	112	44.68	16
	17	2.22	43	63.67	281	39.11	30	67.92	270	23.349	164	48.64	234	14.895	77	44.84	28
	27	1.79	34	60.86	317	38.81	23	65.22	308	23.185	116	46.30	271	14.818	35	45.12	42
Nov.	6	1.45	24	57.69	348	38.58	16	62.14	340	23.069	61	43.59	303	14.783	$\overline{12}$	45.54	58
	16	1.21	13	54.21	370	38.42	7	58.74	363	23.008	1	40.56	329	14.795	62	46.12	74
	26	1.08	1	50.51	383	38.35	$\overline{2}$	55.11	379	23.007	$\overline{61}$	37.27	345	14.857	113	46.86	91
Dez.	6	1.07	$\overline{11}$	46.68	384	38.37	11	51.32	384	23.068	123	33.82	353	14.970	161	47.77	106
	16	1.18	23	42.84	376	38.48	19	47.48	376	23.191	181	30.29	351	15.131	205	48.83	118
	26	1.41	33	39.08	355	38.67	28	43.72	357	23.372	235	26.78	338	15.336	243	50.01	128
	36	1.74		35.53		38.95		40.15		23.607		23.40		15.579		51.29	
Mittl. Ort		4.53		58.24		40.36		62.03		23.527		43.34		14.226		40.89	
sec δ, tg δ		2.776		+2.589		2.058		+1.799		1.357		+0.918		1.017		−0.185	
a, *a′*		−0.1		−7.8		+0.8		−7.5		+1.9		−7.5		+3.3		−7.3	
b, *b′*		−0.07		+0.92		−0.05		+0.93		−0.02		+0.93		0.00		+0.93	

*) Bei Stern 1432), 621) und 622) lies Mai 31.

Tag		626) η Herculis				625) α Triang. austr.				627) Grb 2377 Draco				628) ε Scorpii			
		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947		$16^h\ 41^m$		$+39°\ 0'$		$16^h\ 42^m$		$-68°\ 55'$		$16^h\ 44^m$		$+56°\ 52'$		$16^h\ 46^m$		$-34°\ 11'$	
Jan.	1	2.494	248	71.57	320	56.56	58	51.90	162	14.778	285	24.28	345	40.833	294	52.24	2
	11	2.742	288	68.37	292	57.14	66	50.28	125	15.063	345	20.83	311	41.127	327	52.26	19
	21	3.030	319	65.45	253	57.80	72	49.03	85	15.408	394	17.72	266	41.454	349	52.45	36
	31	3.349	339	62.92	206	58.52	77	48.18	44	15.802	431	15.06	213	41.803	364	52.81	50
Febr.	10	3.688	351	60.86	151	59.29	78	47.74	1	16.233	455	12.93	151	42.167	370	53.31	61
	20	4.039	354	59.35	92	60.07	78	47.73	39	16.688	463	11.42	85	42.537	370	53.92	71
März	2	4.393	348	58.43	31	60.85	78	48.12	78	17.151	459	10.57	18	42.907	363	54.63	77
	12	4.741	336	58.12	29	61.63	76	48.90	114	17.610	444	10.39	48	43.270	353	55.40	81
	22	5.077	316	58.41	86	62.39	72	50.04	148	18.054	416	10.87	112	43.623	337	56.21	86
April	1	5.393	291	59.27	139	63.11	67	51.52	178	18.470	379	11.99	168	43.960	319	57.07	85
	11	5.684	261	60.66	185	63.78	62	53.30	205	18.849	333	13.67	218	44.279	298	57.92	88
	21	5.945	227	62.51	221	64.40	55	55.35	227	19.182	281	15.85	257	44.577	272	58.80	90
Mai	1	6.172	190	64.72	250	64.95	48	57.62	245	19.463	223	18.42	288	44.849	243	59.70	90
	11	6.362	150	67.22	268	65.43	40	60.07	258	19.686	162	21.30	306	45.092	211	60.60	91
	21	6.512	108	69.90	277	65.83	31	62.65	267	19.848	98	24.36	316	45.303	175	61.51	91
	31	6.620	63	72.67	278	66.14	21	65.32	268	19.946	32	27.52	314	45.478	137	62.42	90
Juni	9	[2] 6.683	19	75.45	269	[3] 66.35	11	68.00	264	[3] 19.978	32	30.66	304	[4] 45.615	94	63.32	88
	19	6.702	25	78.14	252	66.46	2	70.64	254	19.946	96	33.70	284	45.709	51	64.20	84
	29	6.677	69	80.66	230	66.48	9	73.18	236	19.850	157	36.54	257	45.760	7	65.04	78
Juli	9	6.608	110	82.96	201	66.39	19	75.54	213	19.693	212	39.11	223	45.767	37	65.82	69
	19	6.498	148	84.97	167	66.20	28	77.67	183	19.481	264	41.34	185	45.730	79	66.51	59
	29	6.350	182	86.64	129	65.92	36	79.50	147	19.217	308	43.19	141	45.651	117	67.10	46
Aug.	8	6.168	210	87.93	89	65.56	42	80.97	106	18.909	343	44.60	94	45.534	150	67.56	30
	18	5.958	231	88.82	46	65.14	47	82.03	62	18.566	369	45.54	45	45.384	174	67.86	13
	28	5.727	243	89.28	1	64.67	51	82.65	15	18.197	385	45.99	6	45.210	191	67.99	4
Sept.	7	5.484	246	89.29	44	64.16	50	82.80	34	17.812	388	45.93	57	45.019	196	67.95	23
	17	5.238	239	88.85	89	63.66	49	82.46	82	17.424	378	45.36	108	44.823	190	67.72	39
	27	4.999	223	87.96	134	63.17	44	81.64	126	17.046	356	44.28	158	44.633	172	67.33	55
Okt.	7	4.776	195	86.62	177	62.73	38	80.38	167	16.690	321	42.70	206	44.461	143	66.78	66
	17	4.581	158	84.85	218	62.35	29	78.71	200	16.369	274	40.64	251	44.318	103	66.12	75
	27	4.423	113	82.67	255	62.06	19	76.71	226	16.095	215	38.13	291	44.215	54	65.37	78
Nov.	6	4.310	61	80.12	288	61.87	6	74.45	242	15.880	147	35.22	324	44.161	0	64.59	77
	16	4.249	4	77.24	314	61.81	6	72.03	250	15.733	72	31.98	352	44.161	59	63.82	71
	26	4.245	56	74.10	332	61.87	19	69.53	246	15.661	8	28.46	370	44.220	119	63.11	60
Dez.	6	4.301	114	70.78	343	62.06	31	67.07	234	15.669	89	24.76	377	44.339	176	62.51	46
	16	4.415	170	67.35	342	62.37	43	64.73	212	15.758	168	20.99	375	44.515	229	62.05	29
	26	4.585	222	63.93	332	62.80	54	62.61	185	15.926	243	17.24	360	44.744	274	61.76	11
	36	4.807		60.61		63.34		60.76		16.169		13.64		45.018		61.65	
Mittl. Ort		4.615		79.35		62.00		60.02		17.238		33.68		43.550		55.80	
sec δ, tg δ		1.287		+0.810		2.782		−2.596		1.830		+1.533		1.209		−0.680	
a, *a'*		+2.1		−6.8		+6.3		−6.6		+1.1		−6.5		+3.9		−6.3	
b, *b'*		−0.02		+0.94		+0.06		+0.94		−0.03		+0.95		+0.01		+0.95	

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629) 49 Herculis

Tag	AR.	Diff.	Dekl.	Diff.
1947	16h 49m		+15° 3′	
	s		″	
Jan. 1	37.842	231	37.87	246
11	38.073	261	35.41	230
21	38.334	283	33.11	208
31	38.617	298	31.03	178
Febr. 10	38.915	305	29.25	140
20	39.220	307	27.85	99
März 2	39.527	302	26.86	55
12	39.829	293	26.31	11
22	40.122	280	26.20	33
April 1	40.402	262	26.53	73
11	40.664	241	27.26	108
21	40.905	219	28.34	138
Mai 1	41.124	192	29.72	161
11	41.316	163	31.33	176
21	41.479	131	33.09	186
31	41.610	98	34.95	188
Juni 9	[4] 41.708	62	36.83	185
19	41.770	25	38.68	176
29	41.795	11	40.44	161
Juli 9	41.784	47	42.05	144
19	41.737	81	43.49	123
29	41.656	113	44.72	99
Aug. 8	41.543	139	45.71	73
18	41.404	160	46.44	45
28	41.244	173	46.89	17
Sept. 7	41.071	178	47.06	12
17	40.893	174	46.94	43
27	40.719	161	46.51	73
Okt. 7	40.558	138	45.78	104
17	40.420	106	44.74	133
27	40.314	68	43.41	162
Nov. 6	40.246	23	41.79	189
16	40.223	26	39.90	212
26	40.249	76	37.78	231
Dez. 6	40.325	124	35.47	244
16	40.449	170	33.03	251
26	40.619	211	30.52	250
36	40.830		28.02	
Mittl. Ort	39.933		42.34	
sec δ, tg δ	1.036		+0.269	
a, *a′*	+2.7		−6.1	
b, *b′*	−0.01		+0.95	

1444) 24 G. Arae

Tag	AR.	Diff.	Dekl.	Diff.
1947	16h 54m		−50° 33′	
	s		″	
Jan. 1	8.625	357	29.39	91
11	8.982	401	28.48	64
21	9.383	433	27.84	36
31	9.816	455	27.48	8
Febr. 10	10.271	467	27.40	18
20	10.738	470	27.58	44
März 2	11.208	464	28.02	66
12	11.672	453	28.68	88
22	12.125	436	29.56	107
April 1	12.561	413	30.63	123
11	12.974	386	31.86	139
21	13.360	352	33.25	152
Mai 1	13.712	315	34.77	163
11	14.027	272	36.40	171
21	14.299	224	38.11	177
31	[5] 14.523	173	39.88	178
Juni 9	14.696	117	41.66	177
19	14.813	60	43.43	171
29	14.873	1	45.14	161
Juli 9	14.874	56	46.75	145
19	14.818	111	48.20	127
29	14.707	161	49.47	102
Aug. 8	14.546	204	50.49	76
18	14.342	237	51.25	45
28	14.105	258	51.70	12
Sept. 7	13.847	266	51.82	21
17	13.581	259	51.61	54
27	13.322	238	51.07	85
Okt. 7	13.084	202	50.22	112
17	12.882	152	49.10	135
27	12.730	91	47.75	151
Nov. 6	12.639	23	46.24	161
16	12.616	52	44.63	163
26	12.668	128	43.00	158
Dez. 6	12.796	200	41.42	146
16	12.996	268	39.96	129
26	13.264	329	38.67	107
36	13.593		37.60	
Mittl. Ort	12.053		34.53	
sec δ, tg δ	1.574		−1.216	
a, *a′*	+4.6		−5.7	
b, *b′*	+0.02		+0.96	

631) ζ Arae

Tag	AR.	Diff.	Dekl.	Diff.
1947	16h 54m		−55° 54′	
	s		″	
Jan. 1	9.711	394	25.66	116
11	10.105	444	24.50	87
21	10.549	481	23.63	56
31	11.030	507	23.07	24
Febr. 10	11.537	522	22.83	6
20	12.059	525	22.89	37
März 2	12.584	521	23.26	65
12	13.105	507	23.91	91
22	13.612	488	24.82	115
April 1	14.100	462	25.97	137
11	14.562	431	27.34	156
21	14.993	392	28.90	172
Mai 1	15.385	349	30.62	186
11	15.734	300	32.48	196
21	16.034	245	34.44	203
31	[6] 16.279	185	36.47	206
Juni 9	16.464	123	38.53	204
19	16.587	58	40.57	197
29	16.645	9	42.54	185
Juli 9	16.636	74	44.39	169
19	16.562	136	46.08	146
29	16.426	192	47.54	120
Aug. 8	16.234	239	48.74	89
18	15.995	275	49.63	53
28	15.720	299	50.16	17
Sept. 7	15.421	308	50.33	21
17	15.113	299	50.12	59
27	14.814	276	49.53	95
Okt. 7	14.538	235	48.58	126
17	14.303	180	47.32	153
27	14.123	111	45.79	173
Nov. 6	14.012	33	44.06	186
16	13.979	49	42.20	190
26	14.028	134	40.30	186
Dez. 6	14.162	217	38.44	176
16	14.379	293	36.68	158
26	14.672	362	35.10	134
36	15.034		33.76	
Mittl. Ort	13.513		31.41	
sec δ, tg δ	1.784		−1.477	
a, *a′*	+5.0		−5.7	
b, *b′*	+0.03		+0.96	

633) κ Ophiuchi

Tag	AR.	Diff.	Dekl.	Diff.
1947	16h 55m		+9° 27′	
	s		″	
Jan. 1	7.318	227	17.91	222
11	7.545	257	15.69	210
21	7.802	279	13.59	191
31	8.081	293	11.68	166
Febr. 10	8.374	301	10.02	135
20	8.675	303	8.67	98
März 2	8.978	300	7.69	59
12	9.278	291	7.10	19
22	9.569	278	6.91	20
April 1	9.847	263	7.11	56
11	10.110	244	7.67	88
21	10.354	223	8.55	115
Mai 1	10.577	197	9.70	136
11	10.774	170	11.06	151
21	10.944	140	12.57	159
31	[6] 11.084	107	14.16	163
Juni 9	11.191	72	15.79	160
19	11.263	35	17.39	152
29	11.298	0	18.91	141
Juli 9	11.298	37	20.32	126
19	11.261	72	21.58	108
29	11.189	103	22.66	88
Aug. 8	11.086	130	23.54	66
18	10.956	152	24.20	44
28	10.804	166	24.64	19
Sept. 7	10.638	172	24.83	5
17	10.466	169	24.78	31
27	10.297	156	24.47	57
Okt. 7	10.141	135	23.90	84
17	10.006	104	23.06	109
27	9.902	66	21.97	135
Nov. 6	9.836	22	20.62	160
16	9.814	26	19.02	182
26	9.840	75	17.20	199
Dez. 6	9.915	123	15.21	214
16	10.038	168	13.07	223
26	10.206	208	10.84	223
36	10.414		8.61	
Mittl. Ort	9.443		21.61	
sec δ, tg δ	1.014		+0.167	
a, *a′*	+2.9		−5.6	
b, *b′*	0.00		+0.96	

Obere Kulmination Greenwich

Tag	634) ε Herculis AR.		Dekl.		1449) 85 G. Ophiuchi AR.		Dekl.		639) ζ Draconis AR.		Dekl.		641) δ Herculis AR.		Dekl.	
1947	16^h 58^m		+30° 59′		17^h 5^m		−17° 32′		17^h 8^m		+65° 46′		17^h 12^m		+24° 53′	
	s		″		s		″		s		″		s		″	
Jan. 1	13.451	224	65.32	302	7.590	245	26.14	81	34.61	28	38.47	357	49.012	208	55.67	283
11	13.675	261	62.30	281	7.835	275	26.95	86	34.89	37	34.90	327	49.220	244	52.84	266
21	13.936	289	59.49	248	8.110	297	27.81	89	35.26	45	31.63	285	49.464	272	50.18	239
31	14.225	310	57.01	206	8.407	312	28.70	86	35.71	50	28.78	234	49.736	293	47.79	203
Febr. 10	14.535	323	54.95	159	8.719	321	29.56	82	36.21	55	26.44	174	50.029	306	45.76	160
20	14.858	328	53.36	106	9.040	323	30.38	72	36.76	58	24.70	109	50.335	313	44.16	112
März 2	15.186	325	52.30	49	9.363	320	31.10	60	37.34	59	23.61	41	50.648	314	43.04	60
12	15.511	317	51.81	7	9.683	313	31.70	48	37.93	57	23.20	27	50.962	308	42.44	7
22	15.828	303	51.88	61	9.996	303	32.18	35	38.50	55	23.47	93	51.270	297	42.37	43
April 1	16.131	284	52.49	112	10.299	289	32.53	21	39.05	51	24.40	153	51.567	282	42.80	1
11	16.415	260	53.61	156	10.588	272	32.74	11	39.56	45	25.93	206	51.849	263	43.71	134
21	16.675	233	55.17	193	10.860	253	32.85	1	40.01	38	27.99	250	52.112	239	45.05	170
Mai 1	16.908	202	57.10	222	11.113	229	32.86	7	40.39	31	30.49	285	52.351	212	46.75	199
11	17.110	167	59.32	243	11.342	203	32.79	11	40.70	23	33.34	309	52.563	182	48.74	220
21	17.277	131	61.75	253	11.545	172	32.68	14	40.93	14	36.43	323	52.745	148	50.94	232
31	17.408	91	64.28	257	11.717	140	32.54	14	41.07	5	39.66	326	52.893	112	53.26	238
Juni 9*)	[7] 17.499	51	66.85	253	[8] 11.857	103	32.40	14	[9] 41.12	4	42.92	319	[10] 53.005	73	55.64	234
19	17.550	9	69.38	240	11.960	65	32.26	13	41.08	13	46.11	304	53.078	33	57.98	225
29	17.559	32	71.78	221	12.025	26	32.13	11	40.95	21	49.15	281	53.111	8	60.23	210
Juli 9	17.527	72	73.99	198	12.051	13	32.02	8	40.74	29	51.96	249	53.103	47	62.33	189
19	17.455	110	75.97	168	12.038	52	31.94	7	40.45	36	54.45	212	53.056	85	64.22	164
29	17.345	144	77.65	135	11.986	88	31.87	6	40.09	43	56.57	171	52.971	120	65.86	135
Aug. 8	17.201	174	79.00	100	11.898	118	31.81	6	39.66	47	58.28	125	52.851	150	67.21	103
18	17.027	196	80.00	62	11.780	142	31.75	6	39.19	52	59.53	75	52.701	175	68.24	69
28	16.831	211	80.62	22	11.638	160	31.69	7	38.67	54	60.28	25	52.526	193	68.93	33
Sept. 7	16.620	218	80.84	19	11.478	169	31.62	8	38.13	55	60.53	28	52.333	201	69.26	3
17	16.402	214	80.65	60	11.309	167	31.54	9	37.58	55	60.25	81	52.132	200	69.23	41
27	16.188	202	80.05	102	11.142	154	31.45	7	37.03	53	59.44	132	51.932	190	68.82	79
Okt. 7	15.986	179	79.03	142	10.988	133	31.38	5	36.50	49	58.12	182	51.742	171	68.03	117
17	15.807	146	77.61	181	10.855	100	31.33	1	36.01	43	56.30	230	51.571	141	66.86	152
27	15.661	106	75.80	217	10.755	60	31.32	5	35.58	37	54.00	273	51.430	104	65.34	187
Nov. 6	15.555	59	73.63	250	10.695	14	31.37	15	35.21	29	51.27	311	51.326	60	63.47	219
16	15.496	7	71.13	277	10.681	36	31.52	26	34.92	19	48.16	343	51.266	11	61.28	246
26	15.489	47	68.36	298	10.717	87	31.78	39	34.73	10	44.73	365	51.255	40	58.82	268
Dez. 6	15.536	101	65.38	311	10.804	138	32.17	51	34.63	1	41.08	377	51.295	91	56.14	283
16	15.637	152	62.27	316	10.942	185	32.68	64	34.64	12	37.31	379	51.386	140	53.31	291
26	15.789	200	59.11	310	11.127	225	33.32	74	34.76	22	33.52	368	51.526	185	50.40	288
36	15.989		56.01		11.352		34.06		34.98		29.84		51.711		47.52	
Mittl. Ort	15.579		71.89		9.998		26.06		37.66		47.32		51.161		61.43	
sec δ, tg δ	1.167		+0.601		1.049		−0.316		2.438		+2.223		1.103		+0.464	
a, a′	+2.3		−5.3		+3.5		−4.8		+0.2		−4.5		+2.5		−4.1	
b, b′	−0.01		+0.96		0.00		+0.97		−0.03		+0.98		−0.01		+0.98	

*) Bei Stern 641) lies Juni 10.

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Tag		643) π Herculis AR.		643) π Herculis Dekl.		1454) Pi 17ʰ 68 Herc AR.		1454) Pi 17ʰ 68 Herc Dekl.		644) ϑ Ophiuchi AR.		644) ϑ Ophiuchi Dekl.		645) β Arae AR.		645) β Arae Dekl.	
1947		$17^h\ 13^m$		+36° 51′		$17^h\ 17^m$		+18° 6′		$17^h\ 18^m$		−24° 56′		$17^h\ 20^m$		−55° 28′	
		s		″		s		″		s		″		s		″	
Jan.	1	9.736	211	57.19	320	56.433	205	31.86	257	42.528	245	54.34	31	49.419	355	52.75	138
	11	9.947	252	53.99	299	56.638	238	29.29	242	42.773	279	54.65	41	49.774	409	51.37	114
	21	10.199	287	51.00	265	56.876	265	26.87	219	43.052	303	55.06	47	50.183	453	50.23	86
	31	10.486	312	48.35	223	57.141	284	24.68	189	43.355	322	55.53	52	50.636	484	49.37	58
Febr.	10	10.798	330	46.12	173	57.425	298	22.79	151	43.677	332	56.05	53	51.120	505	48.79	29
	20	11.128	339	44.39	117	57.723	304	21.28	109	44.009	337	56.58	52	51.625	516	48.50	1
März	2	11.467	341	43.22	57	58.027	304	20.19	62	44.346	337	57.10	48	52.141	518	48.49	27
	12	11.808	336	42.65	2	58.331	300	19.57	15	44.683	332	57.58	44	52.659	513	48.76	53
	22	12.144	323	42.67	60	58.631	291	19.42	32	45.015	323	58.02	38	53.172	500	49.29	78
April	1	12.467	305	43.27	115	58.922	278	19.74	75	45.338	312	58.40	33	53.672	480	50.07	101
	11	12.772	281	44.42	164	59.200	261	20.49	114	45.650	295	58.73	29	54.152	455	51.08	123
	21	13.053	253	46.06	204	59.461	240	21.63	147	45.945	276	59.02	25	54.607	422	52.31	142
Mai	1	13.306	221	48.10	237	59.701	215	23.10	174	46.221	254	59.27	22	55.029	383	53.73	159
	11	13.527	184	50.47	260	59.916	187	24.84	193	46.475	226	59.49	23	55.412	338	55.32	174
	21	13.711	144	53.07	275	60.103	156	26.77	205	46.701	196	59.72	23	55.750	286	57.06	185
	31	13.855	102	55.82	279	60.259	122	28.82	210	46.897	161	59.95	24	56.036	229	58.91	193
Juni	10	[10] 13.957	58	58.61	277	[12] 60.381	85	30.92	208	[12] 47.058	123	60.19	26	[12] 56.265	167	60.84	197
	19	14.015	13	61.38	265	60.466	47	33.00	200	47.181	83	60.45	27	56.432	102	62.81	195
	29	14.028	33	64.03	247	60.513	8	35.00	187	47.264	40	60.72	29	56.534	34	64.76	189
Juli	9	13.995	77	66.50	223	60.521	31	36.87	169	47.304	3	61.01	28	56.568	34	66.65	177
	19	13.918	118	68.73	192	60.490	69	38.56	147	47.301	44	61.29	27	56.534	100	68.42	161
	29	13.800	157	70.65	158	60.421	104	40.03	122	47.257	83	61.56	24	56.434	160	70.03	139
Aug.	8	13.643	189	72.23	120	60.317	134	41.25	95	47.174	118	61.80	18	56.274	213	71.42	110
	18	13.454	215	73.43	79	60.183	159	42.20	65	47.056	146	61.98	13	56.061	256	72.52	79
	28	13.239	233	74.22	37	60.024	176	42.85	34	46.910	166	62.11	5	55.805	287	73.31	44
Sept.	7	13.006	242	74.59	7	59.848	186	43.19	3	46.744	177	62.16	3	55.518	304	73.75	7
	17	12.764	242	74.52	52	59.662	186	43.22	31	46.567	178	62.13	11	55.214	304	73.82	31
	27	12.522	230	74.00	97	59.476	178	42.91	63	46.389	167	62.02	19	54.910	288	73.51	67
Okt.	7	12.292	209	73.03	141	59.298	158	42.28	96	46.222	146	61.83	24	54.622	255	72.84	101
	17	12.083	178	71.62	183	59.140	131	41.32	129	46.076	114	61.59	27	54.367	207	71.83	132
	27	11.905	138	69.79	223	59.009	95	40.03	159	45.962	74	61.32	27	54.160	145	70.51	157
Nov.	6	11.767	90	67.56	258	58.914	53	38.44	189	45.888	26	61.05	25	54.015	72	68.94	174
	16	11.677	37	64.98	289	58.861	5	36.55	214	45.862	25	60.80	19	53.943	7	67.20	184
	26	11.640	19	62.09	312	58.856	43	34.41	235	45.887	78	60.61	10	53.950	90	65.36	187
Dez.	6	11.659	76	58.97	327	58.899	93	32.06	251	45.965	131	60.51	0	54.040	172	63.49	182
	16	11.735	131	55.70	332	58.992	140	29.55	258	46.096	181	60.51	11	54.212	249	61.67	171
	26	11.866	183	52.38	328	59.132	183	26.97	260	46.277	224	60.62	24	54.461	320	59.96	153
	36	12.049		49.10		59.315		24.37		46.501		60.86		54.781		58.43	
Mittl. Ort		11.947		64.11		58.591		36.88		45.100		54.42		53.280		55.87	
sec δ, tg δ		1.250		+0.750		1.052		+0.327		1.103		−0.465		1.765		−1.454	
a, *a′*		+2.1		−4.1		+2.6		−3.7		+3.7		−3.6		+5.0		−3.4	
b, *b′*		−0.01		+0.98		0.00		+0.98		+0.01		+0.98		+0.02		+0.99	

Tag	648) δ Arae				651) α Arae				653) β Draconis				652) λ Scorpii			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$17^h\ 26^m$		−60° 38′		$17^h\ 27^m$		−49° 50′		$17^h\ 29^m$		+52° 19′		$17^h\ 29^m$		−37° 4′	
	s		″		s		″		s		″		s		″	
Jan. 1	14.12	39	28.58	168	40.940	313	9.10	114	11.438	202	76.22	354	57.470	263	1.04	46
11	14.51	45	26.90	142	41.253	361	7.96	94	11.640	262	72.68	331	57.733	301	0.58	31
21	14.96	50	25.48	112	41.614	399	7.02	71	11.902	313	69.37	295	58.034	331	0.27	17
31	15.46	55	24.36	82	42.013	428	6.31	47	12.215	355	66.42	250	58.365	355	0.10	3
Febr. 10	16.01	57	23.54	49	42.441	446	5.84	23	12.570	386	63.92	196	58.720	369	0.07	—9
20	16.58	58	23.05	16	42.887	458	5.61	1	12.956	406	61.96	135	59.089	377	0.16	20
März 2	17.16	60	22.89	—15	43.345	461	5.60	—22	13.362	416	60.61	69	59.466	379	0.36	30
12	17.76	58	23.04	46	43.806	457	5.82	43	13.778	414	59.92	3	59.845	376	0.66	37
22	18.34	57	23.50	75	44.263	447	6.25	62	14.192	402	59.89	—62	60.221	369	1.03	45
April 1	18.91	56	24.25	104	44.710	431	6.87	81	14.594	381	60.51	122	60.590	357	1.48	52
11	19.47	52	25.29	129	45.141	411	7.68	99	14.975	351	61.73	177	60.947	341	2.00	58
21	19.99	49	26.58	153	45.552	384	8.67	115	15.326	313	63.50	225	61.288	320	2.58	65
Mai 1	20.48	44	28.11	173	45.936	352	9.82	130	15.639	270	65.75	263	61.608	296	3.23	72
11	20.92	38	29.84	192	46.288	313	11.12	143	15.909	220	68.38	291	61.904	265	3.95	79
21	21.30	33	31.76	205	46.601	269	12.55	153	16.129	165	71.29	309	62.169	231	4.74	84
31	21.63	27	33.81	215	46.870	220	14.08	161	16.294	109	74.38	318	62.400	191	5.58	90
Juni 10	(14) 21.90	19	35.96	221	(14) 47.090	166	15.69	166	(14) 16.403	49	77.56	316	(15) 62.591	149	6.48	94
19	22.09	11	38.17	220	47.256	108	17.35	166	16.452	—12	80.72	306	62.740	102	7.42	95
29	22.20	4	40.37	213	47.364	48	19.01	162	16.440	71	83.78	288	62.842	54	8.37	95
Juli 9	22.24	—4	42.50	202	47.412	—12	20.63	154	16.369	128	86.66	263	62.896	4	9.32	92
19	22.20	12	44.52	184	47.400	71	22.17	140	16.241	182	89.29	230	62.900	—45	10.24	84
29	22.08	19	46.36	159	47.329	126	23.57	123	16.059	232	91.59	192	62.855	90	11.08	75
Aug. 8	21.89	25	47.95	130	47.203	174	24.80	100	15.827	273	93.51	151	62.765	130	11.83	62
18	21.64	30	49.25	95	47.029	215	25.80	73	15.554	308	95.02	105	62.635	164	12.45	45
28	21.34	34	50.20	56	46.814	244	26.53	44	15.246	333	96.07	58	62.471	189	12.90	28
Sept. 7	21.00	36	50.76	16	46.570	261	26.97	12	14.913	346	96.65	7	62.282	203	13.18	8
17	20.64	36	50.92	—26	46.309	263	27.09	—21	14.567	349	96.72	—43	62.079	207	13.26	—13
27	20.28	34	50.66	68	46.046	251	26.88	52	14.218	339	96.29	94	61.872	196	13.13	33
Okt. 7	19.94	31	49.98	107	45.795	223	26.36	83	13.879	316	95.35	145	61.676	175	12.80	51
17	19.63	25	48.91	142	45.572	182	25.53	110	13.563	282	93.90	192	61.501	141	12.29	66
27	19.38	19	47.49	171	45.390	128	24.43	130	13.281	237	91.98	238	61.360	97	11.63	77
Nov. 6	19.19	10	45.78	193	45.262	65	23.13	146	13.044	181	89.60	278	61.263	45	10.86	85
16	19.09	1	43.85	207	45.197	—5	21.67	155	12.863	118	86.82	313	61.218	—12	10.01	87
26	19.08	—8	41.78	213	45.202	78	20.12	158	12.745	50	83.69	340	61.230	72	9.14	85
Dez. 6	19.16	17	39.65	210	45.280	151	18.54	153	12.695	—21	80.29	358	61.302	132	8.29	79
16	19.33	27	37.55	200	45.431	219	17.01	143	12.716	93	76.71	366	61.434	187	7.50	68
26	19.60	34	35.55	182	45.650	282	15.58	127	12.809	163	73.05	362	61.621	238	6.82	56
36	19.94		33.73		45.932		14.31		12.972		69.43		61.859		6.26	
Mittl. Ort	18.49		31.58		44.423		11.07		13.960		83.66		60.384		1.62	
sec δ, tg δ	2.040		−1.778		1.550		−1.185		1.637		+1.296		1.253		−0.755	
a, *a′*	+5.4		−2.9		+4.6		−2.8		+1.4		−2.7		+4.1		−2.6	
b, *b′*	+0.02		+0.99		+0.01		+0.99		−0.01		+0.99		+0.01		+0.99	

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Tag	656) α Ophiuchi AR.		656) α Ophiuchi Dekl.		654) ϑ Scorpii AR.		654) ϑ Scorpii Dekl.		658) ξ Serpentis AR.		658) ξ Serpentis Dekl.		664) ω Draconis AR.		664) ω Draconis Dekl.	
1947	$17^h 32^m$		$+12° 35'$		$17^h 33^m$		$-42° 57'$		$17^h 34^m$		$-15° 22'$		$17^h 37^m$		$+68° 46'$	
	s		"		s		"		s		"		s			
Jan. 1	26.149	193	45.22	231	27.281	277	57.27	82	30.532	216	2.96	79	11.93	22	50.03	364
11	26.342	227	42.91	219	27.558	320	56.45	64	30.748	249	3.75	82	12.15	34	46.39	340
21	26.569	254	40.72	202	27.878	354	55.81	47	30.997	274	4.57	81	12.49	43	42.99	305
31	26.823	275	38.70	176	28.232	379	55.34	29	31.271	293	5.38	78	12.92	51	39.94	259
Febr. 10	27.098	288	36.94	143	28.611	397	55.05	12	31.564	306	6.16	69	13.43	57	37.35	204
20	27.386	297	35.51	106	29.008	407	54.93	5	31.870	313	6.85	57	14.00	62	35.31	141
März 2	27.683	299	34.45	64	29.415	410	54.98	20	32.183	315	7.42	45	14.62	64	33.90	74
12	27.982	298	33.81	22	29.825	408	55.18	34	32.498	313	7.87	29	15.26	65	33.16	7
22	28.280	291	33.59	20	30.233	401	55.52	48	32.811	308	8.16	13	15.91	63	33.09	60
April 1	28.571	281	33.79	61	30.634	388	56.00	60	33.119	298	8.29	1	16.54	59	33.69	123
11	28.852	267	34.40	96	31.022	371	56.60	72	33.417	286	8.28	13	17.13	55	34.92	181
21	29.119	249	35.36	127	31.393	349	57.32	84	33.703	269	8.15	24	17.68	47	36.73	230
Mai 1	29.368	227	36.63	153	31.742	322	58.16	95	33.972	249	7.91	32	18.15	40	39.03	270
11	29.595	201	38.16	170	32.064	289	59.11	105	34.221	226	7.59	36	18.55	30	41.73	300
21	29.796	172	39.86	182	32.353	251	60.16	115	34.447	197	7.23	38	18.85	21	44.73	321
31	29.968	140	41.68	188	32.604	209	61.31	121	34.644	165	6.85	38	19.06	12	47.94	330
Juni 10	30.108	104	43.56	187	32.813	161	62.52	126	34.809	129	6.47	35	19.18	0	51.24	330
19	15 30.212	66	45.43	180	15 32.974	111	63.78	128	16 34.938	91	6.12	32	16 19.18	10	54.54	321
29	30.278	27	47.23	169	33.085	58	65.06	126	35.029	52	5.80	27	19.08	19	57.75	303
Juli 9	30.305	12	48.92	154	33.143	3	66.32	122	35.081	10	5.53	21	18.89	29	60.78	277
19	30.293	51	50.46	135	33.146	49	67.54	112	35.091	31	5.32	16	18.60	38	63.55	245
29	30.242	86	51.81	113	33.097	99	68.66	100	35.060	68	5.16	12	18.22	46	66.00	207
Aug. 8	30.156	118	52.94	90	32.998	143	69.66	82	34.992	103	5.04	8	17.76	52	68.07	164
18	30.038	145	53.84	64	32.855	180	70.48	62	34.889	132	4.96	5	17.24	58	69.71	117
28	29.893	165	54.48	38	32.675	208	71.10	39	34.757	154	4.91	2	16.66	61	70.88	68
Sept. 7	29.728	177	54.86	10	32.467	225	71.49	14	34.603	166	4.89	1	16.05	64	71.56	16
17	29.551	179	54.96	18	32.242	228	71.63	13	34.437	170	4.88	1	15.41	65	71.72	36
27	29.372	173	54.78	47	32.014	218	71.50	39	34.267	162	4.89	4	14.76	63	71.36	89
Okt. 7	29.199	156	54.31	76	31.796	195	71.11	62	34.105	145	4.93	6	14.13	60	70.47	141
17	29.043	131	53.55	104	31.601	160	70.49	84	33.960	118	4.99	11	13.53	56	69.06	191
27	28.912	97	52.51	132	31.441	113	69.65	100	33.842	82	5.10	18	12.97	48	67.15	238
Nov. 6	28.815	56	51.19	159	31.328	57	68.65	113	33.760	40	5.28	25	12.49	41	64.77	281
16	28.759	11	49.60	183	31.271	5	67.52	119	33.720	8	5.53	35	12.08	31	61.96	317
26	28.748	36	47.77	203	31.276	70	66.33	119	33.728	57	5.88	45	11.77	20	58.79	346
Dez. 6	28.784	84	45.74	218	31.346	133	65.14	115	33.785	107	6.33	56	11.57	8	55.33	365
16	28.868	129	43.56	228	31.479	194	63.99	106	33.892	153	6.89	66	11.49	3	51.68	373
26	28.997	172	41.28	232	31.673	250	62.93	92	34.045	195	7.55	73	11.52	15	47.95	371
36	29.169		38.96		31.923		62.01		34.240		8.28		11.67		44.24	
Mittl. Ort	28.346		49.78		30.425		58.11		32.964		1.07		15.41		57.54	
sec δ, tg δ	1.025		+0.223		1.367		−0.931		1.037		−0.275		2.763		+2.576	
a, a'	+2.8		−2.4		+4.3		−2.3		+3.4		−2.2		−0.4		−2.0	
b, b'	0.00		+0.99		+0.01		+0.99		0.00		+0.99		−0.02		+1.00	

Tag	663) ι Herculis AR.		663) ι Herculis Dekl.		661) η Pavonis AR.		661) η Pavonis Dekl.		665) β Ophiuchi AR.		665) β Ophiuchi Dekl.		670) ψ Draconis *pr* AR.		670) ψ Draconis *pr* Dekl.	
1947	$17^h\ 37^m$		$+46°\ 1'$		$17^h\ 40^m$		$-64°\ 41'$		$17^h\ 40^m$		$+4°\ 35'$		$17^h\ 42^m$		$+72°\ 10'$	
	s		"		s		"		s		"		s		"	
Jan. 1	55.586	184	54.21	345	26.65	41	62.80	198	48.907	191	12.35	187	48.56	22	24.28	365
11	55.770	237	50.76	325	27.06	48	60.82	174	49.098	223	10.48	181	48.78	36	20.63	343
21	56.007	282	47.51	292	27.54	55	59.08	145	49.321	250	8.67	168	49.14	47	17.20	309
31	56.289	318	44.59	250	28.09	60	57.63	113	49.571	270	6.99	148	49.61	57	14.11	264
Febr. 10	56.607	346	42.09	199	28.69	63	56.50	79	49.841	284	5.51	123	50.18	65	11.47	210
20	56.953	365	40.10	141	29.32	66	55.71	45	50.125	294	4.28	92	50.83	71	9.37	148
März 2	57.318	374	38.69	78	29.98	67	55.26	11	50.419	297	3.36	58	51.54	75	7.89	82
12	57.692	375	37.91	14	30.65	67	55.15	$\overline{24}$	50.716	296	2.78	23	52.29	75	7.07	15
22	58.067	366	37.77	$\overline{50}$	31.32	66	55.39	58	51.012	291	2.55	$\overline{12}$	53.04	73	6.92	$\overline{52}$
April 1	58.433	351	38.27	109	31.98	63	55.97	89	51.303	283	2.67	45	53.77	70	7.44	116
11	58.784	327	39.36	163	32.61	61	56.86	119	51.586	271	3.12	76	54.47	63	8.60	173
21	59.111	297	40.99	210	33.22	57	58.05	147	51.857	255	3.88	101	55.10	56	10.33	223
Mai 1	59.408	261	43.09	249	33.79	52	59.52	172	52.112	235	4.89	122	55.66	46	12.56	264
11	59.669	219	45.58	278	34.31	46	61.24	194	52.347	212	6.11	137	56.12	36	15.20	295
21	59.888	174	48.36	297	34.77	40	63.18	212	52.559	183	7.48	147	56.48	24	18.15	317
31	60.062	125	51.33	307	35.17	32	65.30	226	52.742	153	8.95	151	56.72	13	21.32	327
Juni 10	60.187	72	54.40	308	35.49	23	67.56	234	52.895	118	10.46	150	56.85	0	24.59	329
19	[17] 60.259	19	57.48	300	[17] 35.72	15	69.90	236	[17] 53.013	81	11.96	145	[18] 56.85	13	27.88	321
29	60.278	$\overline{34}$	60.48	283	35.87	6	72.26	233	53.094	42	13.41	135	56.72	24	31.09	303
Juli 9	60.244	86	63.31	260	35.93	$\overline{3}$	74.59	223	53.136	3	14.76	123	56.48	35	34.12	279
19	60.158	136	65.91	230	35.90	12	76.82	206	53.139	$\overline{36}$	15.99	108	56.13	46	36.91	248
29	60.022	182	68.21	196	35.78	20	78.88	183	53.103	73	17.07	90	55.67	54	39.39	211
Aug. 8	59.840	222	70.17	156	35.58	28	80.71	153	53.030	105	17.97	72	55.13	63	41.50	169
18	59.618	255	71.73	113	35.30	34	82.24	117	52.925	133	18.69	53	54.50	70	43.19	122
28	59.363	280	72.86	67	34.96	39	83.41	78	52.792	155	19.22	32	53.80	74	44.41	74
Sept. 7	59.083	294	73.53	20	34.57	41	84.19	34	52.637	168	19.54	12	53.06	76	45.15	23
17	58.789	298	73.73	$\overline{29}$	34.16	42	84.53	$\overline{11}$	52.469	171	19.66	$\overline{10}$	52.30	78	45.38	$\overline{29}$
27	58.491	291	73.44	79	33.74	41	84.42	56	52.298	167	19.56	32	51.52	77	45.09	82
Okt. 7	58.200	272	72.65	127	33.33	37	83.86	99	52.131	151	19.24	53	50.75	73	44.27	135
17	57.928	243	71.38	174	32.96	32	82.87	140	51.980	126	18.71	75	50.02	68	42.92	184
27	57.685	203	69.64	219	32.64	25	81.47	174	51.854	94	17.96	98	49.34	61	41.08	232
Nov. 6	57.482	153	67.45	259	32.39	16	79.73	200	51.760	54	16.98	120	48.73	51	38.76	275
16	57.329	98	64.86	295	32.23	5	77.73	220	51.706	10	15.78	139	48.22	40	36.01	313
26	57.231	37	61.91	323	32.18	$\overline{5}$	75.53	231	51.696	$\overline{36}$	14.39	158	47.82	27	32.88	342
Dez. 6	57.194	$\overline{26}$	58.68	342	32.23	15	73.22	233	51.732	83	12.81	172	47.55	15	29.46	362
16	57.220	89	55.26	352	32.38	26	70.89	226	51.815	128	11.09	181	47.40	0	25.84	373
26	57.309	150	51.74	350	32.64	36	68.63	212	51.943	170	9.28	187	47.40	14	22.11	370
36	57.459		48.24		33.00		66.51		52.113		7.41		47.54		18.41	
Mittl. Ort	57.990		61.05		31.60		64.59		51.151		16.34		52.51		31.51	
sec δ, tg δ	1.440		+1.037		2.340		−2.116		1.003		+0.080		3.267		+3.110	
a, *a′*	+1.7		−1.9		+5.9		−1.7		+3.0		−1.7		−1.1		−1.5	
b, *b′*	−0.01		+1.00		+0.01		+1.00		0.00		+1.00		−0.02		+1.00	

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Tag	667) μ Herculis[1])				675) 35 Draconis				671) ξ Draconis				672) ϑ Herculis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$17^h\ 44^m$		$+27°\ 44'$		$17^h\ 51^m$		$+76°\ 57'$		$17^h\ 52^m$		$+56°\ 52'$		$17^h\ 54^m$		$+37°\ 15'$	
	s		″		s		″		s		″		s		″	
Jan. 1	20.707	176	56.13	294	43.97	22	69.78	361	33.850	168	42.73	362	23.696	163	17.15	323
11	20.883	216	53.19	279	44.19	40	66.17	340	34.018	238	39.11	343	23.859	208	13.92	308
21	21.099	248	50.40	254	44.59	57	62.77	310	34.256	301	35.68	313	24.067	247	10.84	281
31	21.347	275	47.86	220	45.16	72	59.67	268	34.557	355	32.55	270	24.314	280	8.03	245
Febr. 10	21.622	295	45.66	178	45.88	83	56.99	215	34.912	397	29.85	218	24.594	306	5.58	199
20	21.917	307	43.88	130	46.71	92	54.84	156	35.309	428	27.67	159	24.900	324	3.59	146
März 2	22.224	313	42.58	77	47.63	97	53.28	91	35.737	447	26.08	94	25.224	334	2.13	88
12	22.537	314	41.81	22	48.60	100	52.37	24	36.184	453	25.14	28	25.558	338	1.25	29
22	22.851	309	41.59	$\overline{31}$	49.60	97	52.13	$\overline{42}$	36.637	447	24.86	$\overline{39}$	25.896	334	0.96	$\overline{31}$
April 1	23.160	298	41.90	82	50.57	93	52.55	106	37.084	430	25.25	103	26.230	325	1.27	88
11	23.458	283	42.72	129	51.50	86	53.61	163	37.514	403	26.28	161	26.555	308	2.15	141
21	23.741	263	44.01	170	52.36	75	55.24	214	37.917	365	27.89	212	26.863	287	3.56	186
Mai 1	24.004	238	45.71	202	53.11	62	57.38	257	38.282	318	30.01	255	27.150	259	5.42	224
11	24.242	209	47.73	228	53.73	48	59.95	289	38.600	266	32.56	288	27.409	226	7.66	255
21	24.451	176	50.01	245	54.21	32	62.84	312	38.866	206	35.44	312	27.635	188	10.21	275
31	24.627	139	52.46	253	54.53	16	65.96	325	39.072	143	38.56	325	27.823	148	12.96	287
Juni 10	24.766	100	54.99	254	54.69	$\overline{1}$	69.21	329	39.215	75	41.81	328	27.971	103	15.83	290
19*)	^{18}24.866	57	57.53	247	$_{20}$54.68	18	72.50	322	$_{20}$39.290	7	45.09	323	$_{21}$28.074	56	18.73	285
29	24.923	15	60.00	235	54.50	34	75.72	307	39.297	$\overline{61}$	48.32	308	28.130	8	21.58	272
Juli 9	24.938	$\overline{29}$	62.35	215	54.16	49	78.79	284	39.236	127	51.40	286	28.138	$\overline{39}$	24.30	252
19	24.909	70	64.50	190	53.67	63	81.63	255	39.109	191	54.26	257	28.099	86	26.82	227
29	24.839	109	66.40	162	53.04	76	84.18	220	38.918	249	56.83	222	28.013	129	29.09	195
Aug. 8	24.730	144	68.02	130	52.28	87	86.38	180	38.669	299	59.05	182	27.884	168	31.04	161
18	24.586	174	69.32	96	51.41	95	88.18	135	38.370	341	60.87	138	27.716	201	32.65	122
28	24.412	195	70.28	58	50.46	103	89.53	88	38.029	374	62.25	90	27.515	226	33.87	80
Sept. 7	24.217	209	70.86	20	49.43	106	90.41	37	37.655	395	63.15	40	27.289	242	34.67	37
17	24.008	214	71.06	$\overline{20}$	48.37	109	90.78	$\overline{14}$	37.260	404	63.55	$\overline{11}$	27.047	250	35.04	$\overline{8}$
27	23.794	209	70.86	59	47.28	107	90.64	66	36.856	398	63.44	64	26.797	246	34.96	53
Okt. 7	23.585	193	70.27	100	46.21	104	89.98	118	36.458	380	62.80	116	26.551	231	34.43	99
17	23.392	168	69.27	138	45.17	97	88.80	168	36.078	349	61.64	166	26.320	208	33.44	143
27	23.224	135	67.89	176	44.20	88	87.12	216	35.729	305	59.98	215	26.112	174	32.01	186
Nov. 6	23.089	93	66.13	210	43.32	76	84.96	261	35.424	249	57.83	259	25.938	131	30.15	226
16	22.996	47	64.03	241	42.56	62	82.35	298	35.175	184	55.24	298	25.807	83	27.89	260
26	22.949	$\overline{3}$	61.62	266	41.94	45	79.37	330	34.991	111	52.26	330	25.724	30	25.29	290
Dez. 6	22.952	54	58.96	285	41.49	28	76.07	352	34.880	$\underline{35}$	48.96	353	25.694	$\overline{25}$	22.39	311
16	23.006	104	56.11	295	41.21	9	72.55	364	34.845	44	45.43	365	25.719	80	19.28	324
26	23.110	151	53.16	296	41.12	$\overline{10}$	68.91	365	34.889	122	41.78	366	25.799	133	16.04	325
36	23.261		50.20		41.22		65.26		35.011		38.12		25.932		12.79	
Mittl. Ort	22.933		61.92		49.03		76.50		36.605		49.32		26.013		23.13	
sec δ, tg δ	1.130		+0.526		4.436		+4.322		1.830		+1.533		1.256		+0.761	
a, a'	+2.4		−1.4		−2.7		−0.7		+1.0		−0.6		+2.1		−0.5	
b, b'	0.00		+1.00		−0.01		+1.00		0.00		+1.00		0.00		+1.00	

[1]) Die jährliche Parallaxe (0.″109) ist bereits berücksichtigt.

*) Bei Stern 675), 671) und 672) lies Juni 20.

Tag	676) γ Draconis AR.		676) γ Draconis Dekl.		673) ν Ophiuchi AR.		673) ν Ophiuchi Dekl.	
1947	$17^h\ 55^m$		$+51°\ 29'$		$17^h\ 56^m$		$-9°\ 46'$	
	s		"		s		"	
Jan. 1	19.824	161	33.45	356	4.039	189	11.20	102
11	19.985	221	29.89	338	4.228	223	12.22	103
21	20.206	276	26.51	308	4.451	251	13.25	98
31	20.482	322	23.43	268	4.702	272	14.23	89
Febr. 10	20.804	359	20.75	218	4.974	287	15.12	76
20	21.163	385	18.57	159	5.261	298	15.88	59
März 2	21.548	400	16.98	96	5.559	304	16.47	39
12	21.948	407	16.02	31	5.863	306	16.86	19
22	22.355	403	15.71	35	6.169	303	17.05	3
April 1	22.758	389	16.06	98	6.472	298	17.02	22
11	23.147	366	17.04	155	6.770	288	16.80	40
21	23.513	335	18.59	205	7.058	274	16.40	55
Mai 1	23.848	297	20.64	248	7.332	257	15.85	66
11	24.145	251	23.12	281	7.589	235	15.19	74
21	24.396	202	25.93	304	7.824	210	14.45	78
31	24.598	146	28.97	318	8.034	178	13.67	78
Juni 10	24.744	87	32.15	322	8.212	145	12.89	75
20	(21) 24.831	28	35.37	317	(21) 8.357	107	12.14	70
29	24.859	32	38.54	303	8.464	67	11.44	62
Juli 9	24.827	92	41.57	281	8.531	26	10.82	54
19	24.735	148	44.38	254	8.557	15	10.28	45
29	24.587	201	46.92	220	8.542	55	9.83	36
Aug. 8	24.386	248	49.12	181	8.487	90	9.47	26
18	24.138	286	50.93	138	8.397	121	9.21	18
28	23.852	316	52.31	91	8.276	146	9.03	9
Sept. 7	23.536	336	53.22	43	8.130	161	8.94	2
17	23.200	344	53.65	7	7.969	168	8.92	6
27	22.856	341	53.58	59	7.801	165	8.98	14
Okt. 7	22.515	324	52.99	110	7.636	151	9.12	22
17	22.191	296	51.89	159	7.485	128	9.34	31
27	21.895	257	50.30	207	7.357	96	9.65	41
Nov. 6	21.638	207	48.23	251	7.261	57	10.06	51
16	21.431	149	45.72	289	7.204	13	10.57	63
26	21.282	84	42.83	321	7.191	34	11.20	74
Dez. 6	21.198	16	39.62	344	7.225	81	11.94	84
16	21.182	53	36.18	357	7.306	126	12.78	93
26	21.235	121	32.61	359	7.432	169	13.71	99
36	21.356		29.02		7.601		14.70	
Mittl. Ort	22.403		39.82		6.423		7.83	
sec δ, tg δ	1.606		+1.257		1.015		−0.172	
a, *a'*	+1.4		−0.4		+3.3		−0.3	
b, *b'*	0.00		+1.00		0.00		+1.00	

Tag	677) 67 Ophiuchi AR.		677) 67 Ophiuchi Dekl.		679) γ Sagittarii AR.		679) γ Sagittarii Dekl.	
1947	$17\ 57^m$		$+2°\ 55'$		$18^h\ 2^m$		$-30°\ 25'$	
	s		"		s		"	
Jan. 1	57.050	176	52.84	174	21.359	213	38.32	26
11	57.226	209	51.10	169	21.572	251	38.06	17
21	57.435	238	49.41	158	21.823	283	37.89	11
31	57.673	260	47.83	139	22.106	309	37.78	4
Febr. 10	57.933	277	46.44	116	22.415	327	37.74	1
20	58.210	287	45.28	88	22.742	340	37.73	3
März 2	58.497	294	44.40	55	23.082	347	37.76	5
12	58.791	296	43.85	22	23.429	350	37.81	5
22	59.087	295	43.63	11	23.779	349	37.86	7
April 1	59.382	289	43.74	44	24.128	344	37.93	7
11	59.671	279	44.18	73	24.472	334	38.00	9
21	59.950	265	44.91	98	24.806	319	38.09	13
Mai 1	60.215	247	45.89	118	25.125	301	38.22	18
11	60.462	226	47.07	133	25.426	277	38.40	23
21	60.688	200	48.40	143	25.703	248	38.63	29
31	60.888	168	49.83	147	25.951	213	38.92	36
Juni 10	61.056	135	51.30	146	26.164	174	39.28	44
20	(22) 61.191	98	52.76	141	(23) 26.338	132	39.72	50
29	61.289	59	54.17	132	26.470	86	40.22	55
Juli 9	61.348	19	55.49	120	26.556	39	40.77	58
19	61.367	22	56.69	106	26.595	9	41.35	59
29	61.345	60	57.75	89	26.586	54	41.94	58
Aug. 8	61.285	95	58.64	72	26.532	97	42.52	52
18	61.190	125	59.36	53	26.435	133	43.04	46
28	61.065	148	59.89	34	26.302	162	43.50	35
Sept. 7	60.917	164	60.23	15	26.140	182	43.85	24
17	60.753	171	60.38	6	25.958	190	44.09	10
27	60.582	169	60.32	25	25.768	187	44.19	3
Okt. 7	60.413	155	60.07	45	25.581	173	44.16	17
17	60.258	134	59.62	67	25.408	148	43.99	28
27	60.124	102	58.95	86	25.260	113	43.71	37
Nov. 6	60.022	66	58.09	107	25.147	68	43.34	44
16	59.956	23	57.02	126	25.079	18	42.90	47
26	59.933	22	55.76	143	25.061	35	42.43	48
Dez. 6	59.955	69	54.33	158	25.096	89	41.95	44
16	60.024	113	52.75	167	25.185	140	41.51	38
26	60.137	154	51.08	172	25.325	189	41.13	32
36	60.291		49.36		25.514		40.81	
Mittl. Ort	59.325		57.08		24.115		35.92	
sec δ, tg δ	1.001		+0.051		1.160		−0.587	
a, *a'*	+3.0		−0.2		+3.9		+0.2	
b, *b'*	0.00		+1.00		0.00		+1.00	

Scheinbare Sternörter 1947

Tag	680) 72 Ophiuchi				681) o Herculis				682) μ Sagittarii				685) 36 Draconis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$18^h\ 4^m$		$+9°\ 33'$		$18^h\ 5^m$		$+28°\ 44'$		$18^h\ 10^m$		$-21°\ 4'$		$18^h\ 13^m$		$+64°\ 22'$	
	s		"		s		"		s		"		s		"	
Jan. 1	47.875	165	12.72	207	26.130	153	68.83	294	32.996	189	31.85	27	32.16	12	39.15	368
11	48.040	199	10.65	200	26.283	194	65.89	282	33.185	226	32.12	31	32.28	23	35.47	353
21	48.239	229	8.65	186	26.477	229	63.07	259	33.411	256	32.43	32	32.51	31	31.94	328
31	48.468	253	6.79	164	26.706	259	60.48	228	33.667	280	32.75	31	32.82	38	28.66	289
Febr. 10	48.721	271	5.15	136	26.965	282	58.20	188	33.947	298	33.06	27	33.20	44	25.77	240
20	48.992	284	3.79	101	27.247	299	56.32	140	34.245	311	33.33	21	33.64	50	23.37	182
März 2	49.276	292	2.78	64	27.546	311	54.92	89	34.556	320	33.54	13	34.14	53	21.55	119
12	49.568	295	2.14	25	27.857	315	54.03	34	34.876	323	33.67	3	34.67	55	20.36	53
22	49.863	295	1.89	$\overline{15}$	28.172	314	53.69	$\overline{21}$	35.199	324	33.70	$\overline{5}$	35.22	55	19.83	$\overline{15}$
April 1	50.158	290	2.04	53	28.486	308	53.90	74	35.523	320	33.65	14	35.77	54	19.98	81
11	50.448	280	2.57	89	28.794	296	54.64	122	35.843	312	33.51	20	36.31	50	20.79	142
21	50.728	268	3.46	118	29.090	279	55.86	166	36.155	300	33.31	25	36.81	46	22.21	196
Mai 1	50.996	249	4.64	144	29.369	257	57.52	201	36.455	284	33.06	28	37.27	41	24.17	243
11	51.245	228	6.08	162	29.626	229	59.53	229	36.739	263	32.78	28	37.68	34	26.60	282
21	51.473	201	7.70	176	29.855	198	61.82	250	37.002	237	32.50	25	38.02	27	29.42	309
31	51.674	170	9.46	181	30.053	162	64.32	261	37.239	206	32.25	21	38.29	19	32.51	328
Juni 10	51.844	136	11.27	182	30.215	122	66.93	264	37.445	170	32.04	15	38.48	10	35.79	335
20	51.980	98	13.09	178	30.337	79	69.57	261	37.615	131	31.89	8	38.58	2	39.14	335
29	[23] 52.078	58	14.87	168	[24] 30.416	35	72.18	250	[25] 37.746	88	31.81	2	[26] 38.60	$\overline{7}$	42.49	325
Juli 9	52.136	18	16.55	155	30.451	$\overline{9}$	74.68	233	37.834	44	31.79	$\overline{5}$	38.53	16	45.74	306
19	52.154	$\overline{23}$	18.10	138	30.442	53	77.01	211	37.878	0	31.84	11	38.37	24	48.80	281
29	52.131	62	19.48	118	30.389	95	79.12	183	37.878	43	31.95	15	38.13	31	51.61	248
Aug. 8	52.069	98	20.66	96	30.294	133	80.95	152	37.835	83	32.10	18	37.82	38	54.09	211
18	51.971	128	21.62	73	30.161	165	82.47	118	37.752	118	32.28	18	37.44	43	56.20	168
28	51.843	152	22.35	49	29.996	191	83.65	81	37.634	146	32.46	17	37.01	48	57.88	121
Sept. 7	51.691	170	22.84	24	29.805	208	84.46	43	37.488	165	32.63	15	36.53	52	59.09	72
17	51.521	177	23.08	$\overline{1}$	29.597	217	84.89	2	37.323	175	32.78	11	36.01	52	59.81	20
27	51.344	175	23.07	28	29.380	215	84.91	$\overline{37}$	37.148	174	32.89	8	35.49	53	60.01	$\overline{33}$
Okt. 7	51.169	164	22.79	54	29.165	204	84.54	79	36.974	162	32.97	3	34.96	52	59.68	86
17	51.005	143	22.25	80	28.961	182	83.75	120	36.812	139	33.00	1	34.44	48	58.82	140
27	50.862	114	21.45	106	28.779	152	82.55	158	36.673	108	33.01	$\overline{1}$	33.96	44	57.42	190
Nov. 6	50.748	77	20.39	131	28.627	113	80.97	194	36.565	69	33.00	0	33.52	38	55.52	238
16	50.671	36	19.08	154	28.514	70	79.03	227	36.496	23	33.00	2	33.14	30	53.14	280
26	50.635	$\overline{9}$	17.54	173	28.444	21	76.76	256	36.473	$\overline{26}$	33.02	6	32.84	22	50.34	317
Dez. 6	50.644	56	15.81	190	28.423	$\overline{29}$	74.20	276	36.499	75	33.08	11	32.62	13	47.17	345
16	50.700	100	13.91	201	28.452	79	71.44	290	36.574	122	33.19	18	32.49	3	43.72	362
26	50.800	143	11.90	206	28.531	126	68.54	294	36.696	167	33.37	23	32.46	$\overline{7}$	40.10	368
36	50.943		9.84		28.657		65.60		36.863		33.60		32.53		36.42	
Mittl. Ort	50.127		17.43		28.397		74.28		35.554		28.40		35.40		44.73	
sec δ, tg δ	1.014		+0.168		1.141		+0.549		1.072		−0.385		2.313		+2.085	
a, *a'*	+2.8		+0.4		+2.3		+0.5		+3.6		+0.9		+0.3		+1.2	
b, *b'*	0.00		+1.00		0.00		+1.00		0.00		+1.00		+0.01		+1.00	

Tag	688) η Serpentis AR.	Diff.	Dekl.	Diff.	689) ε Sagittarii AR.	Diff.	Dekl.	Diff.
1947	$18^h\ 18^m$		$-2°\ 54'$		$18^h\ 20^m$		$-34°\ 24'$	
	s		"		s		"	
Jan. 1	31.615	161	55.55	136	36.381	201	45.56	59
11	31.776	195	56.91	133	36.582	242	44.97	52
21	31.971	225	58.24	126	36.824	278	44.45	45
31	32.196	248	59.50	112	37.102	307	44.00	38
Febr. 10	32.444	268	60.62	93	37.409	328	43.62	32
20	32.712	281	61.55	70	37.737	346	43.30	26
März 2	32.993	290	62.25	44	38.083	356	43.04	20
12	33.283	296	62.69	17	38.439	363	42.84	16
22	33.579	297	62.86	$\overline{11}$	38.802	365	42.68	11
April 1	33.876	295	62.75	38	39.167	362	42.57	$\underline{5}$
11	34.171	289	62.37	63	39.529	356	42.52	2
21	34.460	278	61.74	83	39.885	343	42.54	8
Mai 1	34.738	263	60.91	99	40.228	326	42.62	18
11	35.001	244	59.92	112	40.554	303	42.80	27
21	35.245	219	58.80	119	40.857	275	43.07	38
31	35.464	191	57.61	121	41.132	240	43.45	48
Juni 10	35.655	157	56.40	120	41.372	201	43.93	58
20	35.812	121	55.20	114	41.573	156	44.51	68
29	[27] 35.933	81	54.06	105	[27] 41.729	109	45.19	74
Juli 9	36.014	39	53.01	95	41.838	58	45.93	79
19	36.053	2	52.06	82	41.896	8	46.72	81
29	36.051	42	51.24	68	41.904	$\overline{42}$	47.53	80
Aug. 8	36.009	79	50.56	53	41.862	87	48.33	74
18	35.930	113	50.03	38	41.775	128	49.07	67
28	35.817	139	49.65	24	41.647	162	49.74	54
Sept. 7	35.678	158	49.41	9	41.485	185	50.28	40
17	35.520	168	49.32	$\overline{5}$	41.300	198	50.68	23
27	35.352	168	49.37	20	41.102	199	50.91	6
Okt. 7	35.184	159	49.57	34	40.903	188	50.97	$\overline{13}$
17	35.025	140	49.91	49	40.715	164	50.84	29
27	34.885	111	50.40	64	40.551	131	50.55	44
Nov. 6	34.774	77	51.04	79	40.420	88	50.11	56
16	34.697	36	51.83	94	40.332	39	49.55	64
26	34.661	$\overline{9}$	52.77	108	40.293	$\overline{15}$	48.91	70
Dez. 6	34.670	53	53.85	119	40.308	71	48.21	70
16	34.723	97	55.04	129	40.379	124	47.51	69
26	34.820	140	56.33	133	40.503	175	46.82	65
36	34.960		57.66		40.678		46.17	
Mittl. Ort	33.948		51.02		39.252		42.00	
sec δ, tg δ	1.001		−0.051		1.212		−0.685	
a, a'	+3.1		+1.6		+4.0		+1.8	
b, b'	0.00		+1.00		0.00		+1.00	

Tag	690) 109 Herculis AR.	Diff.	Dekl.	Diff.	695) χ Draconis[1]) AR.	Diff.	Dekl.	Diff.
1947	$18^h\ 21^m$		$+21°\ 44'$		$18^h\ 21^m$		$+72°\ 42'$	
	s		"		s		"	
Jan. 1	24.016	140	34.47	263	56.48	10	32.42	367
11	24.156	179	31.84	254	56.58	25	28.75	355
21	24.335	213	29.30	237	56.83	38	25.20	331
31	24.548	242	26.93	210	57.21	49	21.89	294
Febr. 10	24.790	265	24.83	174	57.70	59	18.95	247
20	25.055	282	23.09	134	58.29	68	16.48	192
März 2	25.337	295	21.75	87	58.97	73	14.56	129
12	25.632	302	20.88	37	59.70	76	13.27	63
22	25.934	304	20.51	$\overline{12}$	60.46	77	12.64	$\overline{4}$
April 1	26.238	302	20.63	60	61.23	75	12.68	69
11	26.540	293	21.23	106	61.98	70	13.37	131
21	26.833	281	22.29	145	62.68	65	14.68	187
Mai 1	27.114	263	23.74	178	63.33	56	16.55	235
11	27.377	240	25.52	206	63.89	46	18.90	274
21	27.617	212	27.58	225	64.35	36	21.64	304
31	27.829	179	29.83	236	64.71	24	24.68	323
Juni 10	28.008	143	32.19	241	64.95	11	27.91	334
20	28.151	103	34.60	238	65.06	$\overline{2}$	31.25	335
29	[28] 28.254	61	36.98	229	[28] 65.04	14	34.60	326
Juli 9	28.315	$\underline{17}$	39.27	214	64.90	26	37.86	310
19	28.332	26	41.41	194	64.64	38	40.96	285
29	28.306	67	43.35	171	64.26	49	43.81	255
Aug. 8	28.239	105	45.06	143	63.77	58	46.36	219
18	28.134	139	46.49	114	63.19	66	48.55	177
28	27.995	166	47.63	81	62.53	73	50.32	132
Sept. 7	27.829	186	48.44	48	61.80	77	51.64	82
17	27.643	196	48.92	13	61.03	80	52.46	32
27	27.447	197	49.05	$\overline{24}$	60.23	81	52.78	$\overline{21}$
Okt. 7	27.250	189	48.81	60	59.42	78	52.57	74
17	27.061	170	48.21	96	58.64	75	51.83	127
27	26.891	143	47.25	130	57.89	70	50.56	179
Nov. 6	26.748	108	45.95	163	57.19	61	48.77	228
16	26.640	67	44.32	194	56.58	51	46.49	271
26	26.573	22	42.38	221	56.07	39	43.78	308
Dez. 6	26.551	$\overline{24}$	40.17	241	55.68	27	40.70	338
16	26.575	71	37.76	255	55.41	13	37.32	358
26	26.646	116	35.21	262	55.28	$\overline{1}$	33.74	365
36	26.762		32.59		55.29		30.09	
Mittl. Ort	26.274		39.58		60.73		37.54	
sec δ, tg δ	1.077		+0.399		3.365		+3.213	
a, a'	+2.5		+1.9		−1.2		+1.9	
b, b'	0.00		+1.00		+0.02		+1.00	

[1]) Die jährliche Parallaxe (0.″119) ist bereits berücksichtigt.

Scheinbare Sternörter 1947

Tag	691) α Telescopii AR.		691) α Telescopii Dekl.		699) α Lyrae[1]) AR.		699) α Lyrae[1]) Dekl.		698) ζ Pavonis AR.		698) ζ Pavonis Dekl.		703) 110 Herculis AR.		703) 110 Herculis Dekl.	
1947	$18^h\ 22^m$		$-45°\ 59'$		$18^h\ 35^m$		$+38°\ 43'$		$18^h\ 36^m$		$-71°\ 28'$		$18^h\ 43^m$		$+20°\ 29'$	
	s		″		s		″		s		″		s		″	
Jan. 1	59.286	225	62.16	130	6.174	113	54.58	322	44.92	35	41.53	264	20.487	118	34.36	252
11	59.511	275	60.86	119	6.287	163	51.36	312	45.27	47	38.89	251	20.605	157	31.84	246
21	59.786	319	59.67	107	6.450	206	48.24	293	45.74	58	36.38	231	20.762	192	29.38	231
31	60.105	354	58.60	93	6.656	246	45.31	262	46.32	67	34.07	206	20.954	222	27.07	207
Febr. 10	60.459	381	57.67	77	6.902	278	42.69	222	46.99	74	32.01	175	21.176	248	25.00	175
20	60.840	403	56.90	62	7.180	304	40.47	172	47.73	80	30.26	141	21.424	269	23.25	136
März 2	61.243	417	56.28	45	7.484	324	38.75	116	48.53	84	28.85	106	21.693	284	21.89	92
12	61.660	425	55.83	29	7.808	335	37.59	58	49.37	87	27.79	68	21.977	295	20.97	45
22	62.085	427	55.54	12	8.143	341	37.01	$\overline{2}$	50.24	88	27.11	30	22.272	301	20.52	$\overline{4}$
April 1	62.512	425	55.42	$\overline{5}$	8.484	340	37.03	62	51.12	87	26.81	$\overline{9}$	22.573	302	20.56	52
11	62.937	417	55.47	23	8.824	331	37.65	117	51.99	86	26.90	48	22.875	299	21.08	97
21	63.354	401	55.70	40	9.155	315	38.82	168	52.85	83	27.38	85	23.174	289	22.05	137
Mai 1	63.755	381	56.10	58	9.470	294	40.50	211	53.68	77	28.23	121	23.463	275	23.42	171
11	64.136	354	56.68	76	9.764	265	42.61	247	54.45	72	29.44	155	23.738	255	25.13	199
21	64.490	319	57.44	92	10.029	230	45.08	275	55.17	64	30.99	185	23.993	230	27.12	220
31	64.809	278	58.36	108	10.259	191	47.83	292	55.81	55	32.84	211	24.223	199	29.32	234
Juni 10	65.087	231	59.44	121	10.450	147	50.75	301	56.36	44	34.95	233	24.422	163	31.66	239
20	65.318	179	60.65	132	10.597	99	53.76	303	56.80	33	37.28	248	24.585	125	34.05	239
29*)	28 65.497	122	61.97	139	1 10.696	49	56.79	295	2 57.13	21	39.76	257	3 24.710	83	36.44	231
Juli 9	65.619	63	63.36	141	10.745	$\overline{1}$	59.74	280	57.34	9	42.33	259	24.793	40	38.75	218
19	65.682	4	64.77	140	10.744	52	62.54	260	57.43	$\overline{4}$	44.92	252	24.833	$\overline{5}$	40.93	201
29	65.686	$\overline{55}$	66.17	133	10.692	99	65.14	232	57.39	16	47.44	239	24.828	48	42.94	178
Aug. 8	65.631	109	67.50	121	10.593	144	67.46	200	57.23	28	49.83	216	24.780	88	44.72	153
18	65.522	157	68.71	105	10.449	183	69.46	164	56.95	39	51.99	186	24.692	124	46.25	124
28	65.365	196	69.76	84	10.266	215	71.10	124	56.56	47	53.85	149	24.568	153	47.49	93
Sept. 7	65.169	224	70.60	59	10.051	238	72.34	81	56.09	53	55.34	107	24.415	176	48.42	60
17	64.945	241	71.19	31	9.813	253	73.15	37	55.56	57	56.41	59	24.239	190	49.02	27
27	64.704	242	71.50	2	9.560	256	73.52	$\overline{9}$	54.99	58	57.00	9	24.049	195	49.29	$\overline{8}$
Okt. 7	64.462	230	71.52	$\overline{27}$	9.304	249	73.43	56	54.41	57	57.09	$\overline{43}$	23.854	190	49.21	43
17	64.232	204	71.25	56	9.055	232	72.87	103	53.84	53	56.66	92	23.664	174	48.78	78
27	64.028	165	70.69	81	8.823	205	71.84	148	53.31	46	55.74	140	23.490	151	48.00	112
Nov. 6	63.863	116	69.88	103	8.618	169	70.36	191	52.85	37	54.34	182	23.339	119	46.88	146
16	63.747	58	68.85	120	8.449	125	68.45	230	52.48	25	52.52	216	23.220	82	45.42	176
26	63.689	$\overline{5}$	67.65	132	8.324	76	66.15	264	52.23	13	50.36	244	23.138	40	43.66	203
Dez. 6	63.694	70	66.33	139	8.248	24	63.51	292	52.10	$\overline{1}$	47.92	262	23.098	$\overline{5}$	41.63	225
16	63.764	133	64.94	139	8.224	$\overline{30}$	60.59	310	52.11	15	45.30	270	23.103	50	39.38	241
26	63.897	194	63.55	135	8.254	84	57.49	320	52.26	28	42.60	271	23.153	94	36.97	249
36	64.091		62.20		8.338		54.29		52.54		39.89		23.247		34.48	
Mittl. Ort	62.603		58.81		8.566		59.54		51.29		37.50		22.754		39.33	
sec δ, tg δ	1.440		−1.036		1.282		+0.802		3.148		−2.985		1.068		+0.374	
a, *a′*	+4.4		+2.0		+2.0		+3.1		+7.0		+3.2		+2.6		+3.8	
b, *b′*	−0.01		+0.99		+0.01		+0.99		−0.03		+0.99		0.00		+0.98	

[1]) Die jährliche Parallaxe (0″.121) ist bereits berücksichtigt.

*) Bei Stern 699), 698) und 703) lies Juni 30.

Tag	704) λ Pavonis AR.		Dekl.		705) β Lyrae AR.		Dekl.		707) o Draconis AR.		Dekl.		706) σ Sagittarii AR.		Dekl.	
1947	18ʰ 47ᵐ		−62° 14′		18ʰ 48ᵐ		+33° 17′		18ʰ 50ᵐ		+59° 18′		18ʰ 51ᵐ		−26° 21′	
	s		"		s		"		s		"		s		"	
Jan. 1	14.12	25	69.05	228	4.952	102	55.41	302	22.134	59	79.36	360	56.111	153	57.67	22
11	14.37	33	66.77	219	5.054	146	52.39	296	22.193	138	75.76	355	56.264	194	57.45	22
21	14.70	40	64.58	205	5.200	188	49.43	279	22.331	213	72.21	337	56.458	228	57.23	21
31	15.10	46	62.53	185	5.388	224	46.64	252	22.544	283	68.84	308	56.686	257	57.02	22
Febr. 10	15.56	51	60.68	162	5.612	255	44.12	215	22.827	343	65.76	266	56.943	282	56.80	24
20	16.07	55	59.06	136	5.867	282	41.97	170	23.170	393	63.10	215	57.225	301	56.56	27
März 2	16.62	58	57.70	107	6.149	301	40.27	119	23.563	432	60.95	156	57.526	317	56.29	31
12	17.20	61	56.63	78	6.450	315	39.08	63	23.995	459	59.39	93	57.843	327	55.98	35
22	17.81	61	55.85	47	6.765	323	38.45	7	24.454	473	58.46	26	58.170	335	55.63	39
April 1	18.42	62	55.38	$\underline{14}$	7.088	325	38.38	$\overline{50}$	24.927	475	58.20	$\overline{40}$	58.505	338	55.24	42
11	19.04	60	55.24	17	7.413	320	38.88	104	25.402	462	58.60	103	58.843	337	54.82	42
21	19.64	60	55.41	50	7.733	309	39.92	153	25.864	439	59.63	162	59.180	331	54.40	42
Mai 1	20.24	56	55.91	81	8.042	292	41.45	195	26.303	403	61.25	213	59.511	319	53.98	38
11	20.80	53	56.72	112	8.334	269	43.40	230	26.706	357	63.38	257	59.830	303	53.60	32
21	21.33	47	57.84	139	8.603	238	45.70	257	27.063	303	65.95	293	60.133	281	53.28	24
31	21.80	42	59.23	165	8.841	204	48.27	275	27.366	240	68.88	318	60.414	251	53.04	14
Juni 10	22.22	36	60.88	186	9.045	164	51.02	286	27.606	171	72.06	334	60.665	217	52.90	4
20	22.58	27	62.74	203	9.209	119	53.88	289	27.777	99	75.40	340	60.882	178	52.86	$\overline{7}$
30	22.85	19	64.77	215	9.328	73	56.77	282	27.876	24	78.80	337	61.060	134	52.93	19
Juli 9	[4] 23.04	11	66.92	220	[4] 9.401	$\underline{25}$	59.59	270	[5] 27.900	$\overline{51}$	82.17	327	[5] 61.194	87	53.12	29
19	23.15	2	69.12	219	9.426	23	62.29	251	27.849	125	85.44	308	61.281	39	53.41	38
29	23.17	$\overline{8}$	71.31	209	9.403	70	64.80	227	27.724	196	88.52	282	61.320	$\overline{9}$	53.79	43
Aug. 8	23.09	15	73.40	194	9.333	114	67.07	197	27.528	261	91.34	249	61.311	54	54.22	47
18	22.94	22	75.34	171	9.219	153	69.04	164	27.267	317	93.83	212	61.257	95	54.69	48
28	22.72	29	77.05	142	9.066	185	70.68	127	26.950	365	95.95	169	61.162	130	55.17	46
Sept. 7	22.43	34	78.47	106	8.881	210	71.95	88	26.585	401	97.64	123	61.032	158	55.63	41
17	22.09	37	79.53	66	8.671	226	72.83	47	26.184	426	98.87	73	60.874	175	56.04	33
27	21.72	39	80.19	23	8.445	232	73.30	3	25.758	437	99.60	22	60.699	181	56.37	24
Okt. 7	21.33	37	80.42	$\overline{21}$	8.213	228	73.33	$\overline{40}$	25.321	435	99.82	$\overline{32}$	60.518	177	56.61	15
17	20.96	35	80.21	65	7.985	214	72.93	85	24.886	417	99.50	86	60.341	161	56.76	$\underline{4}$
27	20.61	30	79.56	107	7.771	190	72.08	127	24.469	386	98.64	139	60.180	135	56.80	5
Nov. 6	20.31	24	78.49	145	7.581	157	70.81	169	24.083	343	97.25	190	60.045	101	56.75	13
16	20.07	16	77.04	177	7.424	118	69.12	206	23.740	288	95.35	238	59.944	59	56.62	19
26	19.91	8	75.27	202	7.306	73	67.06	240	23.452	222	92.97	279	59.885	13	56.43	23
Dez. 6	19.83	$\overline{2}$	73.25	220	7.233	$\underline{25}$	64.66	268	23.230	149	90.18	314	59.872	$\overline{36}$	56.20	25
16	19.85	11	71.05	229	7.208	24	61.98	288	23.081	72	87.04	340	59.908	83	55.95	26
26	19.96	20	68.76	232	7.232	73	59.10	298	23.009	$\overline{9}$	83.64	355	59.991	130	55.69	25
36	20.16		66.44		7.305		56.12		23.018		80.09		60.121		55.44	
Mittl. Ort	18.70		63.73		7.292		60.02		25.137		83.08		58.761		51.81	
sec δ, tg δ	2.148		−1.901		1.196		+0.657		1.960		+1.686		1.116		−0.496	
a, a′	+5.6		+4.1		+2.2		+4.2		+0.9		+4.4		+3.7		+4.5	
b, b′	−0.03		+0.98		+0.01		+0.98		+0.02		+0.98		−0.01		+0.97	

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Tag	709) ϑ Serpentis *pr*				711) R Lyrae				708) λ Telescopii				713) γ Lyrae			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$18^h\ 53^m$		$+4°\ 7'$		$18^h\ 53^m$		$+43°\ 52'$		$18^h\ 54^m$		$-53°\ 0'$		$18^h\ 56^m$		$+32°\ 36'$	
	s		″		s		″		s		″		s		″	
Jan. 1	32.740	122	54.10	164	40.767	81	27.13	332	9.919	199	42.60	183	55.227	91	52.02	297
11	32.862	157	52.46	159	40.848	136	23.81	328	10.118	261	40.77	177	55.318	137	49.05	292
21	33.019	190	50.87	150	40.984	186	20.53	310	10.379	315	39.00	168	55.455	178	46.13	277
31	33.209	218	49.37	134	41.170	231	17.43	283	10.694	362	37.32	154	55.633	215	43.36	252
Febr. 10	33.427	240	48.03	111	41.401	271	14.60	244	11.056	401	35.78	138	55.848	246	40.84	216
20	33.667	260	46.92	84	41.672	303	12.16	195	11.457	431	34.40	120	56.094	274	38.68	173
März 2	33.927	275	46.08	52	41.975	330	10.21	141	11.888	456	33.20	99	56.368	295	36.95	122
12	34.202	286	45.56	18	42.305	348	8.80	80	12.344	473	32.21	77	56.663	310	35.73	68
22	34.488	293	45.38	$\overline{16}$	42.653	358	8.00	18	12.817	484	31.44	55	56.973	320	35.05	11
April 1	34.781	296	45.54	50	43.011	361	7.82	$\overline{43}$	13.301	487	30.89	31	57.293	324	34.94	$\overline{44}$
11	35.077	295	46.04	81	43.372	356	8.25	102	13.788	484	30.58	6	57.617	321	35.38	98
21	35.372	289	46.85	109	43.728	342	9.27	157	14.272	474	30.52	$\overline{20}$	57.938	311	36.36	147
Mai 1	35.661	279	47.94	132	44.070	322	10.84	204	14.746	456	30.72	45	58.249	296	37.83	190
11	35.940	263	49.26	149	44.392	293	12.88	245	15.202	430	31.17	70	58.545	274	39.73	226
21	36.203	241	50.75	162	44.685	257	15.33	277	15.632	394	31.87	95	58.819	246	41.99	254
31	36.444	214	52.37	167	44.942	216	18.10	299	16.026	351	32.82	117	59.065	212	44.53	273
Juni 10	36.658	183	54.04	169	45.158	170	21.09	313	16.377	300	33.99	138	59.277	173	47.26	284
20	36.841	147	55.73	165	45.328	118	24.22	318	16.677	241	35.37	155	59.450	130	50.10	288
30	36.988	108	57.38	157	45.446	65	27.40	314	16.918	178	36.92	167	59.580	83	52.98	283
Juli 9	[6] 37.096	66	58.95	145	[6] 45.511	9	30.54	304	[6] 17.096	110	38.59	176	[7] 59.663	36	55.81	272
19	37.162	23	60.40	130	45.520	$\overline{46}$	33.58	285	17.206	40	40.35	177	59.699	$\overline{13}$	58.53	254
29	37.185	$\overline{19}$	61.70	112	45.474	98	36.43	259	17.246	$\overline{30}$	42.12	174	59.686	60	61.07	230
Aug. 8	37.166	59	62.82	94	45.376	147	39.02	229	17.216	96	43.86	164	59.626	104	63.37	202
18	37.107	95	63.76	74	45.229	192	41.31	193	17.120	155	45.50	147	59.522	144	65.39	169
28	37.012	126	64.50	53	45.037	228	43.24	153	16.965	207	46.97	126	59.378	178	67.08	134
Sept. 7	36.886	150	65.03	32	44.809	257	44.77	110	16.758	248	48.23	98	59.200	204	68.42	95
17	36.736	164	65.35	11	44.552	276	45.87	65	16.510	273	49.21	66	58.996	220	69.37	54
27	36.572	170	65.46	$\overline{10}$	44.276	284	46.52	16	16.237	285	49.87	31	58.776	228	69.91	12
Okt. 7	36.402	167	65.36	31	43.992	281	46.68	$\overline{33}$	15.952	281	50.18	$\overline{5}$	58.548	226	70.03	$\overline{31}$
17	36.235	153	65.05	52	43.711	267	46.35	82	15.671	260	50.13	42	58.322	213	69.72	75
27	36.082	131	64.53	73	43.444	243	45.53	130	15.411	224	49.71	77	58.109	191	68.97	118
Nov. 6	35.951	102	63.80	93	43.201	209	44.23	177	15.187	175	48.94	109	57.918	160	67.79	159
16	35.849	65	62.87	112	42.992	166	42.46	221	15.012	117	47.85	136	57.758	123	66.20	198
26	35.784	25	61.75	129	42.826	118	40.25	259	14.895	50	46.49	158	57.635	79	64.22	231
Dez. 6	35.759	$\overline{17}$	60.46	144	42.708	64	37.66	291	14.845	$\overline{21}$	44.91	173	57.556	32	61.91	260
16	35.776	59	59.02	154	42.644	8	34.75	314	14.866	93	43.18	182	57.524	$\overline{15}$	59.31	281
26	35.835	100	57.48	161	42.636	$\overline{48}$	31.61	328	14.959	163	41.36	186	57.539	65	56.50	292
36	35.935		55.87		42.684		28.33		15.122		39.50		57.604		53.58	
Mittl. Ort	35.028		59.48		43.257		31.23		13.607		36.50		57.562		56.44	
sec δ, tg δ	1.003		+0.072		1.387		+0.961		1.662		−1.327		1.187		+0.640	
a, *a′*	+3.0		+4.6		+1.8		+4.7		+4.8		+4.7		+2.2		+4.9	
b, *b′*	0.00		+0.97		+0.01		+0.97		−0.02		+0.97		+0.01		+0.97	

Tag		716) ζ Aquilae AR.		716) ζ Aquilae Dekl.		717) λ Aquilae AR.		717) λ Aquilae Dekl.	
1947		$19^h\ 2^m$		+13° 46′		$19^h\ 3^m$		−4° 57′	
Jan.	1	56.112	103	54.68	212	23.788	120	54.84	107
	11	56.215	142	52.56	209	23.908	156	55.91	105
	21	56.357	176	50.47	198	24.064	188	56.96	97
	31	56.533	205	48.49	178	24.252	216	57.93	85
Febr.	10	56.738	232	46.71	150	24.468	240	58.78	69
	20	56.970	253	45.21	118	24.708	260	59.47	48
März	2	57.223	270	44.03	79	24.968	274	59.95	25
	12	57.493	284	43.24	37	25.242	287	60.20	$\overline{1}$
	22	57.777	293	42.87	$\overline{5}$	25.529	296	60.19	27
April	1	58.070	298	42.92	48	25.825	300	59.92	52
	11	58.368	298	43.40	88	26.125	301	59.40	74
	21	58.666	292	44.28	124	26.426	298	58.66	94
Mai	1	58.958	282	45.52	155	26.724	289	57.72	109
	11	59.240	266	47.07	179	27.013	274	56.63	121
	21	59.506	245	48.86	199	27.287	255	55.42	126
	31	59.751	217	50.85	210	27.542	230	54.16	128
Juni	10	59.968	185	52.95	215	27.772	198	52.88	126
	20	60.153	148	55.10	215	27.970	164	51.62	120
	30	60.301	108	57.25	207	28.134	124	50.42	110
Juli	9	[8] 60.409	65	59.32	196	[8] 28.258	82	49.32	98
	19	60.474	22	61.28	181	28.340	39	48.34	84
	29	60.496	$\overline{22}$	63.09	160	28.379	$\overline{4}$	47.50	69
Aug.	8	60.474	62	64.69	138	28.375	46	46.81	55
	18	60.412	100	66.07	113	28.329	83	46.26	39
	28	60.312	132	67.20	87	28.246	116	45.87	25
Sept.	7	60.180	156	68.07	58	28.130	141	45.62	10
	17	60.024	173	68.65	30	27.989	158	45.52	$\overline{2}$
	27	59.851	180	68.95	1	27.831	165	45.54	15
Okt.	7	59.671	178	68.96	$\overline{29}$	27.666	163	45.69	28
	17	59.493	167	68.67	59	27.503	151	45.97	39
	27	59.326	146	68.08	88	27.352	130	46.36	51
Nov.	6	59.180	118	67.20	116	27.222	100	46.87	63
	16	59.062	84	66.04	142	27.122	66	47.50	74
	26	58.978	44	64.62	165	27.056	26	48.24	84
Dez.	6	58.934	$\overline{2}$	62.97	186	27.030	$\overline{16}$	49.08	93
	16	58.932	39	61.11	201	27.046	58	50.01	101
	26	58.971	82	59.10	209	27.104	99	51.02	105
	36	59.053		57.01		27.203		52.07	
Mittl. Ort		58.372		59.81		26.129		48.93	
sec δ, tg δ		1.030		+0.245		1.004		−0.087	
a, *a′*		+2.8		+5.4		+3.2		+5.5	
b, *b′*		0.00		+0.96		0.00		+0.96	

Tag		718) α Coron. austr. AR.		718) α Coron. austr. Dekl.		720) π Sagittarii AR.		720) π Sagittarii Dekl.	
1947		$19^h\ 5^m$		−37° 59′		$19^h\ 6^m$		−21° 6′	
Jan.	1	49.168	153	27.28	99	34.209	132	41.43	5
	11	49.321	199	26.29	99	34.341	171	41.48	4
	21	49.520	240	25.30	96	34.512	204	41.52	2
	31	49.760	276	24.34	93	34.716	234	41.54	$\overline{3}$
Febr.	10	50.036	305	23.41	87	34.950	259	41.51	10
	20	50.341	330	22.54	82	35.209	280	41.41	17
März	2	50.671	349	21.72	75	35.489	296	41.24	27
	12	51.020	364	20.97	69	35.785	310	40.97	36
	22	51.384	375	20.28	60	36.095	319	40.61	46
April	1	51.759	381	19.68	52	36.414	324	40.15	55
	11	52.140	382	19.16	40	36.738	326	39.60	60
	21	52.522	377	18.76	28	37.064	322	39.00	65
Mai	1	52.899	367	18.48	14	37.386	314	38.35	65
	11	53.266	349	18.34	$\overline{2}$	37.700	300	37.70	63
	21	53.615	325	18.36	19	38.000	279	37.07	58
	31	53.940	294	18.55	35	38.279	254	36.49	50
Juni	10	54.234	256	18.90	53	38.533	221	35.99	41
	20	54.490	213	19.43	68	38.754	184	35.58	29
	30	54.703	164	20.11	82	38.938	143	35.29	17
Juli	9	[9] 54.867	111	20.93	93	[9] 39.081	98	35.12	6
	19	54.978	57	21.86	100	39.179	51	35.06	$\overline{6}$
	29	55.035	2	22.86	105	39.230	5	35.12	16
Aug.	8	55.037	$\overline{51}$	23.91	105	39.235	$\overline{40}$	35.28	23
	18	54.986	99	24.96	99	39.195	82	35.51	30
	28	54.887	141	25.95	89	39.113	116	35.81	32
Sept.	7	54.746	174	26.84	76	38.997	145	36.13	33
	17	54.572	196	27.60	58	38.852	164	36.46	31
	27	54.376	207	28.18	38	38.688	172	36.77	28
Okt.	7	54.169	205	28.56	16	38.516	171	37.05	23
	17	53.964	191	28.72	$\overline{6}$	38.345	158	37.28	19
	27	53.773	165	28.66	29	38.187	136	37.47	14
Nov.	6	53.608	129	28.37	49	38.051	105	37.61	9
	16	53.479	84	27.88	66	37.946	67	37.70	7
	26	53.395	34	27.22	80	37.879	24	37.77	5
Dez.	6	53.361	$\overline{19}$	26.42	91	37.855	$\overline{20}$	37.82	3
	16	53.380	73	25.51	98	37.875	65	37.85	4
	26	53.453	126	24.53	101	37.940	109	37.89	4
	36	53.579		23.52		38.049		37.93	
Mittl. Ort		52.106		20.28		36.743		34.81	
sec δ, tg δ		1.269		−0.781		1.072		−0.386	
a, *a′*		+4.1		+5.7		+3.6		+5.7	
b, *b′*		−0.01		+0.96		−0.01		+0.96	

Scheinbare Sternörter 1947

Tag	723) δ Draconis				724) ϑ Lyrae				725) ω Aquilae				726) κ Cygni			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$9^h\ 12^m$		$+67°\ 33'$		$19^h\ 14^m$		$+38°\ 1'$		$19^h\ 15^m$		$+11°\ 29'$		$19^h\ 15^m$		$+53°\ 15'$	
	s		"		s		"		s		"		s		"	
Jan. 1	29.13	2	63.85	357	29.214	64	74.09	309	17.392	94	49.25	196	49.884	31	69.21	344
11	29.11	8	60.28	358	29.278	112	71.00	309	17.486	131	47.29	194	49.915	97	65.77	345
21	29.19	19	56.70	347	29.390	158	67.91	295	17.617	165	45.35	183	50.012	161	62.32	334
31	29.38	30	53.23	323	29.548	200	64.96	272	17.782	195	43.52	166	50.173	221	58.98	309
Febr. 10	29.68	38	50.00	287	29.748	237	62.24	238	17.977	222	41.86	140	50.394	274	55.89	273
20	30.06	45	47.13	241	29.985	270	59.86	195	18.199	244	40.46	110	50.668	321	53.16	227
März 2	30.51	53	44.72	185	30.255	297	57.91	144	18.443	264	39.36	73	50.989	360	50.89	173
12	31.04	57	42.87	123	30.552	317	56.47	88	18.707	278	38.63	34	51.349	389	49.16	112
22	31.61	59	41.64	58	30.869	331	55.59	29	18.985	290	38.29	7	51.738	408	48.04	48
April 1	32.20	61	41.06	9	31.200	339	55.30	29	19.275	296	38.36	47	52.146	417	47.56	16
11	32.81	60	41.15	74	31.539	339	55.59	86	19.571	298	38.83	86	52.563	415	47.72	80
21	33.41	58	41.89	135	31.878	331	56.45	139	19.869	296	39.69	120	52.978	404	48.52	139
Mai 1	33.99	53	43.24	191	32.209	318	57.84	187	20.165	287	40.89	150	53.382	381	49.91	192
11	34.52	48	45.15	239	32.527	296	59.71	227	20.452	273	42.39	173	53.763	349	51.83	238
21	35.00	40	47.54	279	32.823	267	61.98	259	20.725	253	44.12	192	54.112	308	54.21	277
31	35.40	32	50.33	309	33.090	232	64.57	284	20.978	227	46.04	203	54.420	260	56.98	305
Juni 10	35.72	24	53.42	332	33.322	192	67.41	299	21.205	197	48.07	208	54.680	205	60.03	326
20	35.96	14	56.74	344	33.514	146	70.40	306	21.402	161	50.15	207	54.885	144	63.29	336
30	36.10	4	60.18	347	33.660	98	73.46	305	21.563	121	52.22	201	55.029	80	66.65	338
Juli 10	36.14	6	63.65	341	33.758	46	76.51	296	21.684	79	54.23	190	55.109	15	70.03	332
19	II 36.08	16	67.06	328	II 33.804	6	79.47	280	II 21.763	36	56.13	174	II 55.124	51	73.35	317
29	35.92	25	70.34	307	33.798	56	82.27	259	21.799	8	57.87	156	55.073	114	76.52	295
Aug. 8	35.67	34	73.41	278	33.742	104	84.86	231	21.791	51	59.43	134	54.959	174	79.47	267
18	35.33	42	76.19	244	33.638	148	87.17	198	21.740	88	60.77	110	54.785	229	82.14	232
28	34.91	49	78.63	204	33.490	186	89.15	163	21.652	121	61.87	85	54.556	274	84.46	194
Sept. 7	34.42	53	80.67	161	33.304	215	90.78	122	21.531	147	62.72	59	54.282	312	86.40	150
17	33.89	58	82.28	112	33.089	236	92.00	80	21.384	166	63.31	32	53.970	339	87.90	103
27	33.31	60	83.40	61	32.853	248	92.80	35	21.218	175	63.63	5	53.631	354	88.93	54
Okt. 7	32.71	61	84.01	7	32.605	248	93.15	10	21.043	175	63.68	23	53.277	357	89.47	1
17	32.10	60	84.08	48	32.357	239	93.05	58	20.868	165	63.45	50	52.920	348	89.48	52
27	31.50	57	83.60	102	32.118	220	92.47	104	20.703	146	62.95	77	52.572	326	88.96	104
Nov. 6	30.93	52	82.58	157	31.898	191	91.43	149	20.557	120	62.18	104	52.246	293	87.92	155
16	30.41	46	81.01	208	31.707	155	89.94	191	20.437	88	61.14	129	51.953	250	86.37	205
26	29.95	38	78.93	255	31.552	113	88.03	230	20.349	50	59.85	150	51.703	199	84.32	249
Dez. 6	29.57	29	76.38	294	31.439	65	85.73	262	20.299	10	58.35	170	51.504	140	81.83	286
16	29.28	20	73.44	326	31.374	16	83.11	286	20.289	31	56.65	184	51.364	76	78.97	316
26	29.08	9	70.18	347	31.358	34	80.25	303	20.320	72	54.81	192	51.288	9	75.81	336
36	28.99		66.71		31.392		77.22		20.392		52.89		51.279		72.45	
Mittl. Ort	32.80		66.02		31.611		77.74		19.648		54.54		52.636		71.91	
sec δ, tg δ	2.621		+2.422		1.270		+0.782		1.020		+0.203		1.672		+1.340	
a, *a'*	0.0		+6.2		+2.1		+6.4		+2.8		+6.5		+1.4		+6.5	
b, *b'*	+0.05		+0.95		+0.02		+0.95		0.00		+0.95		+0.03		+0.95	

Tag	729) τ Draconis AR.		729) τ Draconis Dekl.		728) α Sagittarii AR.		728) α Sagittarii Dekl.		730) δ Aquilae AR.		730) δ Aquilae Dekl.		734) Grb 2900 Draco AR.		734) Grb 2900 Draco Dekl.	
1947	$19^h\ 16^m$		$+73°\ 15'$		$19^h\ 20^m$		$-40°\ 42'$		$19^h\ 22^m$		$+3°\ 0'$		$19^h\ 24^m$		$+79°\ 29'$	
	s		″		s		″		s		″		s		″	
Jan. 1	30.43	9	26.17	353	10.016	138	71.39	120	47.246	95	21.57	147	49.30	26	53.30	344
11	30.34	6	22.64	357	10.154	187	70.19	122	47.341	131	20.10	144	49.04	2	49.86	351
21	30.40	20	19.07	348	10.341	230	68.97	120	47.472	163	18.66	136	49.02	21	46.35	345
31	30.60	33	15.59	325	10.571	269	67.77	117	47.635	194	17.30	121	49.23	44	42.90	327
Febr. 10	30.93	47	12.34	291	10.840	301	66.60	112	47.829	219	16.09	101	49.67	64	39.63	296
20	31.40	57	9.43	246	11.141	330	65.48	106	48.048	241	15.08	75	50.31	82	36.67	253
März 2	31.97	65	6.97	192	11.471	352	64.42	98	48.289	261	14.33	45	51.13	98	34.14	203
12	32.62	73	5.05	131	11.823	370	63.44	90	48.550	275	13.88	13	52.11	108	32.11	144
22	33.35	76	3.74	67	12.193	384	62.54	79	48.825	288	13.75	20	53.19	116	30.67	81
April 1	34.11	78	3.07	1	12.577	393	61.75	67	49.113	296	13.95	53	54.35	119	29.86	17
11	34.89	77	3.06	65	12.970	396	61.08	54	49.409	299	14.48	83	55.54	118	29.69	48
21	35.66	74	3.71	126	13.366	394	60.54	38	49.708	298	15.31	111	56.72	113	30.17	109
Mai 1	36.40	68	4.97	182	13.760	386	60.16	21	50.006	291	16.42	134	57.85	104	31.26	166
11	37.08	60	6.79	231	14.146	370	59.95	2	50.297	280	17.76	151	58.89	92	32.92	215
21	37.68	50	9.10	272	14.516	346	59.93	17	50.577	261	19.27	164	59.81	77	35.07	258
31	38.18	40	11.82	304	14.862	317	60.10	38	50.838	238	20.91	170	60.58	60	37.65	292
Juni 10	38.58	28	14.86	327	15.179	279	60.48	57	51.076	209	22.61	172	61.18	41	40.57	318
20	38.86	16	18.13	342	15.458	235	61.05	76	51.285	174	24.33	168	61.59	21	43.75	333
30	39.02	2	21.55	346	15.693	185	61.81	91	51.459	135	26.01	160	61.80	1	47.08	341
Juli 10	39.04	11	25.01	342	15.878	131	62.72	105	51.594	94	27.61	148	61.81	20	50.49	340
19	[12] 38.93	24	28.43	329	[13] 16.009	74	63.77	115	[13] 51.688	51	29.09	134	[14] 61.61	39	53.89	330
29	38.69	35	31.72	310	16.083	16	64.92	120	51.739	7	30.43	116	61.22	59	57.19	313
Aug. 8	38.34	47	34.82	284	16.099	39	66.12	121	51.746	35	31.59	98	60.63	76	60.32	290
18	37.87	58	37.66	250	16.060	91	67.33	116	51.711	74	32.57	78	59.87	92	63.22	259
28	37.29	66	40.16	213	15.969	136	68.49	107	51.637	108	33.35	57	58.95	106	65.81	223
Sept. 7	36.63	74	42.29	169	15.833	173	69.56	92	51.529	135	33.92	37	57.89	118	68.04	183
17	35.89	78	43.98	122	15.660	199	70.48	73	51.394	154	34.29	17	56.71	126	69.87	138
27	35.11	82	45.20	71	15.461	214	71.21	50	51.240	164	34.46	3	55.45	133	71.25	88
Okt. 7	34.29	83	45.91	18	15.247	215	71.71	26	51.076	165	34.43	23	54.12	135	72.13	37
17	33.46	82	46.09	36	15.032	204	71.97	1	50.911	157	34.20	42	52.77	134	72.50	17
27	32.64	79	45.73	92	14.828	180	71.98	25	50.754	139	33.78	62	51.43	131	72.33	72
Nov. 6	31.85	73	44.81	146	14.648	146	71.73	50	50.615	114	33.16	81	50.12	123	71.61	127
16	31.12	66	43.35	198	14.502	102	71.23	70	50.501	82	32.35	98	48.89	112	70.34	178
26	30.46	55	41.37	245	14.400	53	70.53	88	50.419	46	31.37	114	47.77	98	68.56	227
Dez. 6	29.91	45	38.92	287	14.347	1	69.65	104	50.373	6	30.23	127	46.79	81	66.29	271
16	29.46	32	36.05	319	14.348	55	68.61	114	50.367	34	28.96	138	45.98	61	63.58	305
26	29.14	18	32.86	343	14.403	110	67.47	121	50.401	73	27.58	143	45.37	40	60.53	332
36	28.96		29.43		14.513		66.26		50.474		26.15		44.97		57.21	
Mittl. Ort	34.94		27.85		13.016		63.20		49.519		27.51		55.83		54.20	
sec δ, tg δ	3.471		+3.324		1.319		−0.861		1.001		+0.053		5.487		+5.396	
a, *a′*	−1.1		+6.6		+4.2		+6.9		+3.0		+7.1		−3.6		+7.3	
b, *b′*	+0.07		+0.94		−0.02		+0.94		0.00		+0.94		+0.13		+0.93	

Scheinbare Sternörter 1947

Tag	733) ι Cygni				732) β Cygni *pr*				736) 52 Sagittarii				738) ϑ Cygni			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	19h 28m		+51° 36′		19h 28m		+27° 50′		19h 33m		−25° 0′		19h 34m		+50° 5′	
	s		″		s		″		s		″		s		″	
Jan. 1	19.455	16	55.79	336	32.664	62	45.67	268	26.453	107	16.53	27	58.491	11	49.00	331
11	19.471	79	52.43	340	32.726	105	42.99	267	26.560	147	16.26	31	58.502	71	45.69	335
21	19.550	141	49.03	331	32.831	144	40.32	258	26.707	183	15.95	35	58.573	130	42.34	327
31	19.691	199	45.72	309	32.975	181	37.74	238	26.890	216	15.60	40	58.703	187	39.07	307
Febr. 10	19.890	251	42.63	276	33.156	213	35.36	208	27.106	243	15.20	45	58.890	238	36.00	276
20	20.141	299	39.87	233	33.369	243	33.28	170	27.349	268	14.75	52	59.128	285	33.24	234
März 2	20.440	338	37.54	180	33.612	267	31.58	125	27.617	289	14.23	59	59.413	324	30.90	182
12	20.778	369	35.74	121	33.879	287	30.33	76	27.906	306	13.64	65	59.737	355	29.08	124
22	21.147	391	34.53	59	34.166	303	29.57	23	28.212	321	12.99	72	60.092	378	27.84	63
April 1	21.538	403	33.94	$\overline{5}$	34.469	312	29.34	$\overline{30}$	28.533	330	12.27	76	60.470	392	27.21	$\overline{1}$
11	21.941	406	33.99	68	34.781	315	29.64	80	28.863	336	11.51	78	60.862	396	27.22	63
21	22.347	398	34.67	127	35.096	313	30.44	128	29.199	338	10.73	78	61.258	390	27.85	122
Ma 1	22.745	379	35.94	182	35.409	305	31.72	170	29.537	333	9.95	75	61.648	375	29.07	177
11	23.124	352	37.76	229	35.714	289	33.42	207	29.870	322	9.20	68	62.023	351	30.84	224
21	23.476	316	40.05	269	36.003	267	35.49	236	30.192	305	8.52	59	62.374	316	33.08	264
31	23.792	271	42.74	299	36.270	238	37.85	256	30.497	281	7.93	48	62.690	275	35.72	296
Juni 10	24.063	219	45.73	321	36.508	204	40.41	271	30.778	251	7.45	35	62.965	226	38.68	318
20	24.282	163	48.94	334	36.712	165	43.12	276	31.029	215	7.10	19	63.191	171	41.86	332
30	24.445	101	52.28	338	36.877	121	45.88	274	31.244	173	6.91	5	63.362	112	45.18	337
Juli 10	24.546	$\underline{38}$	55.66	334	36.998	76	48.62	266	31.417	128	6.86	$\overline{10}$	63.474	$\underline{51}$	48.55	333
19	[15] 24.584	26	59.00	321	[15] 37.074	28	51.28	252	[16] 31.545	80	6.96	23	[16] 63.525	11	51.88	322
29	24.558	88	62.21	301	37.102	$\overline{19}$	53.80	232	31.625	31	7.19	36	63.514	72	55.10	303
Aug. 8	24.470	147	65.22	275	37.083	65	56.12	207	31.656	$\overline{17}$	7.55	44	63.442	131	58.13	277
18	24.323	202	67.97	242	37.018	106	58.19	179	31.639	62	7.99	50	63.311	184	60.90	246
28	24.121	249	70.39	205	36.912	142	59.98	146	31.577	101	8.49	54	63.127	231	63.36	210
Sept. 7	23.872	287	72.44	163	36.770	171	61.44	112	31.476	134	9.03	53	62.896	270	65.46	168
17	23.585	315	74.07	117	36.599	193	62.56	74	31.342	158	9.56	49	62.626	298	67.14	124
27	23.270	333	75.24	68	36.406	206	63.30	36	31.184	171	10.05	42	62.328	316	68.38	75
Okt. 7	22.937	339	75.92	18	36.200	207	63.66	$\overline{4}$	31.013	175	10.47	35	62.012	324	69.13	$\underline{25}$
17	22.598	332	76.10	$\overline{35}$	35.993	201	63.62	45	30.838	167	10.82	25	61.688	318	69.38	26
27	22.266	314	75.75	88	35.792	185	63.17	84	30.671	149	11.07	15	61.370	303	69.12	79
Nov. 6	21.952	285	74.87	139	35.607	160	62.33	124	30.522	122	11.22	5	61.067	275	68.33	131
16	21.667	246	73.48	189	35.447	128	61.09	161	30.400	88	11.27	$\overline{3}$	60.792	239	67.02	180
26	21.421	199	71.59	234	35.319	91	59.48	195	30.312	47	11.24	12	60.553	194	65.22	225
Dez. 6	21.222	144	69.25	273	35.228	50	57.53	224	30.265	$\underline{4}$	11.12	17	60.359	142	62.97	265
16	21.078	85	66.52	305	35.178	7	55.29	245	30.261	40	10.95	23	60.217	85	60.32	297
26	20.993	22	63.47	326	35.171	$\overline{38}$	52.84	261	30.301	84	10.72	27	60.132	26	57.35	319
36	20.971		60.21		35.209		50.23		30.385		10.45		60.106		54.16	
Mittl. Ort	22.149		58.00		34.953		49.67		29.008		8.22		61.134		51.00	
sec δ, tg δ	1.610		+1.262		1.131		+0.528		1.103		−0.466		1.559		+1.196	
a, *a′*	+1.5		+7.5		+2.4		+7.6		+3.6		+8.0		+1.6		+8.1	
b, *b′*	+0.03		+0.93		+0.01		+0.93		−0.01		+0.92		+0.03		+0.92	

Tag	740) 15 Cygni AR.	Δ	740) 15 Cygni Dekl.	Δ	741) γ Aquilae AR.	Δ	741) γ Aquilae Dekl.	Δ	743) δ Sagittae AR.	Δ	743) δ Sagittae Dekl.	Δ	745) α Aquilae[1] AR.	Δ	745) α Aquilae[1] Dekl.	Δ
1947	19h 42m		+37° 13′		19h 43m		+10° 28′		19h 44m		+18° 23′		19h 48m		+8° 43′	
	s		″		s		″		s		″		s		″	
Jan. 1	19.438	31	28.07	295	42.122	67	52.65	181	59.168	57	63.45	220	9.578	68	31.42	169
11	19.469	80	25.12	299	42.189	103	50.84	180	59.225	95	61.25	221	9.646	105	29.73	167
21	19.549	124	22.13	292	42.292	138	49.04	172	59.320	132	59.04	212	9.751	138	28.06	159
31	19.673	168	19.21	273	42.430	170	47.32	156	59.452	165	56.92	195	9.889	169	26.47	144
Febr. 10	19.841	208	16.48	243	42.600	198	45.76	134	59.617	196	54.97	171	10.058	198	25.03	123
20	20.049	243	14.05	205	42.798	223	44.42	104	59.813	223	53.26	138	10.256	223	23.80	94
März 2	20.292	274	12.00	158	43.021	246	43.38	71	60.036	248	51.88	99	10.479	246	22.86	61
12	20.566	299	10.42	105	43.267	266	42.67	34	60.284	268	50.89	57	10.725	264	22.25	26
22	20.865	320	9.37	48	43.533	280	42.33	$\overline{6}$	60.552	284	50.32	12	10.989	281	21.99	$\overline{12}$
April 1	21.185	332	8.89	$\overline{10}$	43.813	292	42.39	45	60.836	297	50.20	$\overline{34}$	11.270	292	22.11	50
11	21.517	339	8.99	66	44.105	300	42.84	82	61.133	304	50.54	78	11.562	300	22.61	86
21	21.856	338	9.65	120	44.405	300	43.66	117	61.437	305	51.32	119	11.862	301	23.47	119
Mai 1	22.194	329	10.85	170	44.705	297	44.83	147	61.742	300	52.51	156	12.163	298	24.66	147
11	22.523	313	12.55	212	45.002	287	46.30	171	62.042	290	54.07	187	12.461	289	26.13	170
21	22.836	289	14.67	247	45.289	271	48.01	190	62.332	272	55.94	211	12.750	274	27.83	187
31	23.125	258	17.14	275	45.560	249	49.91	203	62.604	249	58.05	228	13.024	251	29.70	199
Juni 10	23.383	221	19.89	294	45.809	220	51.94	209	62.853	219	60.33	239	13.275	224	31.69	204
20	23.604	177	22.83	305	46.029	187	54.03	209	63.072	184	62.72	243	13.499	190	33.73	203
30	23.781	131	25.88	308	46.216	148	56.12	203	63.256	144	65.15	240	13.689	152	35.76	197
Juli 10	23.912	80	28.96	303	46.364	107	58.15	194	63.400	101	67.55	231	13.841	111	37.73	187
19*)	$_{18}$ 23.992	28	31.99	291	$_{18}$ 46.471	63	60.09	179	$_{19}$ 63.501	56	69.86	218	$_{20}$ 13.952	67	39.60	172
29	24.020	$\overline{23}$	34.90	272	46.534	18	61.88	161	63.557	11	72.04	200	14.019	23	41.32	154
Aug. 8	23.997	73	37.62	249	46.552	$\overline{25}$	63.49	140	63.568	$\overline{33}$	74.04	178	14.042	$\overline{20}$	42.86	133
18	23.924	119	40.11	219	46.527	65	64.89	118	63.535	75	75.82	152	14.022	61	44.19	111
28	23.805	159	42.30	185	46.462	101	66.07	94	63.460	111	77.34	125	13.961	97	45.30	87
Sept. 7	23.646	193	44.15	148	46.361	131	67.01	68	63.349	141	78.59	95	13.864	126	46.17	64
17	23.453	218	45.63	107	46.230	153	67.69	42	63.208	163	79.54	64	13.738	149	46.81	38
27	23.235	234	46.70	64	46.077	166	68.11	16	63.045	178	80.18	32	13.589	162	47.19	13
Okt. 7	23.001	240	47.34	19	45.911	170	68.27	$\overline{11}$	62.867	182	80.50	$\overline{1}$	13.427	167	47.32	$\overline{11}$
17	22.761	236	47.53	$\overline{27}$	45.741	165	68.16	36	62.685	178	80.49	34	13.260	162	47.21	36
27	22.525	222	47.26	73	45.576	152	67.80	63	62.507	164	80.15	67	13.098	149	46.85	60
Nov. 6	22.303	200	46.53	119	45.424	130	67.17	88	62.343	143	79.48	99	12.949	127	46.25	83
16	22.103	168	45.34	163	45.294	101	66.29	112	62.200	115	78.49	130	12.822	99	45.42	106
26	21.935	131	43.71	202	45.193	68	65.17	133	62.085	81	77.19	157	12.723	66	44.36	125
Dez. 6	21.804	89	41.69	238	45.125	31	63.84	152	62.004	44	75.62	182	12.657	29	43.11	143
16	21.715	43	39.31	266	45.094	$\overline{7}$	62.32	167	61.960	5	73.80	200	12.628	$\overline{8}$	41.68	156
26	21.672	$\overline{4}$	36.65	285	45.101	46	60.65	176	61.955	$\overline{35}$	71.80	214	12.636	47	40.12	164
36	21.676		33.80		45.147		58.89		61.990		69.66		12.683		38.48	
Mittl. Ort	21.808		30.88		44.348		58.14		61.397		68.10		11.804		37.23	
sec δ, tg δ	1.256		+0.760		1.017		+0.185		1.054		+0.333		1.012		+0.153	
a, *a′*	+2.2		+8.7		+2.9		+8.8		+2.7		+8.9		+2.9		+9.1	
b, *b′*	+0.02		+0.90		+0.01		+0.90		+0.01		+0.90		0.00		+0.89	

[1]) Die jährliche Parallaxe (0.″208) ist bereits berücksichtigt.

*) Bei Stern 745) lies Juli 20.

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Tag	749) β Aquilae AR.	Diff.	749) β Aquilae Dekl.	Diff.	748) ε Pavonis AR.	Diff.	748) ε Pavonis Dekl.	Diff.	751) ϑ^1 Sagittarii AR.	Diff.	751) ϑ^1 Sagittarii Dekl.	Diff.	752) γ Sagittae AR.	Diff.	752) γ Sagittae Dekl.	Diff.
1947	$19^h\ 52^m$		$+6°16'$		$19^h\ 54^m$		$-73°2'$		$19^h\ 56^m$		$-35°25'$		$19^h\ 56^m$		$+19°20'$	
Jan. 1	40.318^s	63	16.92″	157	23.71^s	11	84.40″	292	14.662^s	88	27.15″	96	21.706^s	45	44.80″	220
11	40.381	98	15.35	155	23.82	25	81.48	298	14.750	133	26.19	103	21.751	83	42.60	221
21	40.479	132	13.80	148	24.07	38	78.50	296	14.883	174	25.16	109	21.834	119	40.39	215
31	40.611	164	12.32	133	24.45	49	75.54	286	15.057	212	24.07	112	21.953	154	38.24	198
Febr. 10	40.775	192	10.99	113	24.94	60	72.68	270	15.269	245	22.95	114	22.107	186	36.26	175
20	40.967	217	9.86	86	25.54	69	69.98	247	15.514	275	21.81	115	22.293	214	34.51	143
März 2	41.184	240	9.00	56	26.23	77	67.51	220	15.789	301	20.66	115	22.507	240	33.08	105
12	41.424	261	8.44	22	27.00	84	65.31	189	16.090	324	19.51	114	22.747	263	32.03	63
22	41.685	277	8.22	14	27.84	88	63.42	153	16.414	343	18.37	110	23.010	281	31.40	17
April 1	41.962	289	8.36	49	28.72	92	61.89	114	16.757	359	17.27	104	23.291	295	31.23	29
11	42.251	298	8.85	82	29.64	93	60.75	75	17.116	368	16.23	96	23.586	304	31.52	74
21	42.549	302	9.67	114	30.57	94	60.00	32	17.484	373	15.27	86	23.890	307	32.26	116
Mai 1	42.851	299	10.81	141	31.51	92	59.68	11	17.857	372	14.41	72	24.197	305	33.42	154
11	43.150	291	12.22	161	32.43	89	59.79	53	18.229	364	13.69	55	24.502	295	34.96	185
21	43.441	277	13.83	178	33.32	83	60.32	94	18.593	349	13.14	38	24.797	280	36.81	212
31	43.718	256	15.61	187	34.15	77	61.26	134	18.942	326	12.76	18	25.077	257	38.93	231
Juni 10	43.974	230	17.48	192	34.92	67	62.60	170	19.268	295	12.58	4	25.334	228	41.24	243
20	44.204	197	19.40	190	35.59	58	64.30	203	19.563	257	12.62	24	25.562	194	43.67	247
30	44.401	159	21.30	184	36.17	45	66.33	228	19.820	214	12.86	45	25.756	155	46.14	247
Juli 10	44.560	118	23.14	174	36.62	32	68.61	248	20.034	164	13.31	63	25.911	111	48.61	239
20	21 44.678	75	24.88	158	21 36.94	19	71.09	261	22 20.198	111	13.94	79	22 26.022	67	51.00	226
29	44.753	31	26.46	141	37.13	5	73.70	264	20.309	57	14.73	92	26.089	21	53.26	209
Aug. 8	44.784	13	27.87	122	37.18	9	76.34	260	20.366	4	15.65	100	26.110	24	55.35	187
18	44.771	54	29.09	101	37.09	23	78.94	245	20.370	48	16.65	104	26.086	66	57.22	162
28	44.717	90	30.10	78	36.86	36	81.39	222	20.322	95	17.69	102	26.020	104	58.84	135
Sept. 7	44.627	121	30.88	55	36.50	45	83.61	191	20.227	135	18.71	97	25.916	135	60.19	105
17	44.506	144	31.43	32	36.05	54	85.52	151	20.092	165	19.68	86	25.781	159	61.24	73
27	44.362	159	31.75	10	35.51	61	87.03	105	19.927	185	20.54	70	25.622	175	61.97	41
Okt. 7	44.203	164	31.85	13	34.90	63	88.08	55	19.742	194	21.24	53	25.447	182	62.38	8
17	44.039	161	31.72	36	34.27	63	88.63	1	19.548	190	21.77	32	25.265	179	62.46	26
27	43.878	148	31.36	58	33.64	61	88.64	54	19.358	176	22.09	10	25.086	167	62.20	60
Nov. 6	43.730	127	30.78	78	33.03	54	88.10	107	19.182	151	22.19	11	24.919	148	61.60	92
16	43.603	101	30.00	99	32.49	47	87.03	155	19.031	117	22.08	33	24.771	122	60.68	124
26	43.502	68	29.01	117	32.02	36	85.48	200	18.914	77	21.75	51	24.649	90	59.44	153
Dez. 6	43.434	33	27.84	132	31.66	23	83.48	237	18.837	32	21.24	68	24.559	54	57.91	178
16	43.401	4	26.52	144	31.43	11	81.11	265	18.805	15	20.56	81	24.505	16	56.13	198
26	43.405	42	25.08	153	31.32	3	78.46	286	18.820	63	19.75	93	24.489	23	54.15	213
36	43.447		23.55		31.35		75.60		18.883		18.82		24.512		52.02	
Mittl. Ort	42.537		22.93		29.98		72.24		17.384		16.65		23.922		49.25	
sec δ, tg δ	1.006		+0.110		3.431		−3.282		1.227		−0.711		1.060		+0.351	
a, *a′*	+2.9		+9.5		+6.9		+9.6		+3.9		+9.7		+2.7		+9.7	
b, *b′*	0.00		+0.88		−0.10		+0.88		−0.02		+0.87		+0.01		+0.87	

Tag	754) δ Pavonis [1] AR.		Dekl.		756) ϑ Aquilae AR.		Dekl.	
1947	$20^h\ 3^m$		−66° 18′		$20^h\ 8^m$		−0° 58′	
	s		″		s		″	
Jan. 1	28.03	9	83.56	262	31.992	54	55.34	109
11	28.12	20	80.94	270	32.046	89	56.43	107
21	28.32	28	78.24	271	32.135	122	57.50	100
31	28.60	37	75.53	265	32.257	153	58.50	87
Febr. 10	28.97	44	72.88	254	32.410	182	59.37	69
20	29.41	51	70.34	236	32.592	208	60.06	47
März 2	29.92	56	67.98	213	32.800	232	60.53	22
12	30.48	62	65.85	188	33.032	253	60.75	6
22	31.10	65	63.97	157	33.285	272	60.69	35
April 1	31.75	68	62.40	124	33.557	287	60.34	64
11	32.43	70	61.16	89	33.844	298	59.70	91
21	33.13	70	60.27	51	34.142	305	58.79	115
Mai 1	33.83	69	59.76	12	34.447	305	57.64	136
11	34.52	68	59.64	28	34.752	300	56.28	151
21	35.20	64	59.92	67	35.052	288	54.77	161
31	35.84	60	60.59	105	35.340	270	53.16	166
Juni 10	36.44	53	61.64	140	35.610	245	51.50	166
20	36.97	46	63.04	172	35.855	215	49.84	162
30	37.43	37	64.76	199	36.070	179	48.22	153
Juli 10	37.80	28	66.75	221	36.249	139	46.69	141
20	38.08	18	68.96	236	36.388	95	45.28	125
29	24 38.26	8	71.32	243	25 36.483	51	44.03	108
Aug. 8	38.34	3	73.75	243	36.534	7	42.95	89
18	38.31	13	76.18	232	36.541	36	42.06	70
28	38.18	23	78.50	215	36.505	74	41.36	52
Sept. 7	37.95	30	80.65	188	36.431	105	40.84	32
17	37.65	36	82.53	154	36.326	131	40.52	15
27	37.29	41	84.07	114	36.195	149	40.37	2
Okt. 7	36.88	44	85.21	68	36.046	156	40.39	19
17	36.44	44	85.89	19	35.890	155	40.58	34
27	36.00	41	86.08	30	35.735	145	40.92	48
Nov. 6	35.59	38	85.78	80	35.590	126	41.40	62
16	35.21	32	84.98	127	35.464	102	42.02	75
26	34.89	24	83.71	168	35.362	71	42.77	86
Dez. 6	34.65	15	82.03	205	35.291	38	43.63	95
16	34.50	6	79.98	233	35.253	2	44.58	103
26	34.44	4	77.65	254	35.251	34	45.61	107
36	34.48		75.11		35.285		46.68	
Mittl. Ort	32.75		70.78		34.205		48.18	
sec δ, tg δ	2.490		−2.280		1.000		−0.017	
a, *a′*	+5.7		+10.3		+3.1		+10.7	
b, *b′*	−0.08		+ 0.86		0.00		+ 0.85	

Tag	759) ϰ Cephei AR.		Dekl.		757) 31 o¹ Cygni AR.		Dekl.	
1947	$20^h\ 10^m$		+77° 32′		$20^h\ 11^m$		+46° 34′	
	s		″		s		″	
Jan. 1	36.98	38	71.91	320	55.168	29	46.47	304
11	36.60	20	68.71	339	55.139	26	43.43	316
21	36.40	1	65.32	346	55.165	79	40.27	315
31	36.39	18	61.86	339	55.244	132	37.12	303
Febr. 10	36.57	37	58.47	320	55.376	183	34.09	280
20	36.94	55	55.27	289	55.559	230	31.29	244
März 2	37.49	70	52.38	246	55.789	272	28.85	199
12	38.19	82	49.92	194	56.061	309	26.86	148
22	39.01	92	47.98	136	56.370	339	25.38	90
April 1	39.93	98	46.62	73	56.709	362	24.48	30
11	40.91	102	45.89	9	57.071	375	24.18	32
21	41.93	100	45.80	55	57.446	379	24.50	91
Mai 1	42.93	97	46.35	115	57.825	374	25.41	145
11	43.90	90	47.50	171	58.199	361	26.86	196
21	44.80	80	49.21	222	58.560	336	28.82	240
31	45.60	69	51.43	264	58.896	304	31.22	274
Juni 10	46.29	54	54.07	300	59.200	264	33.96	302
20	46.83	39	57.07	325	59.464	217	36.98	322
30	47.22	23	60.32	343	59.681	165	40.20	331
Juli 10	47.45	5	63.75	352	59.846	108	43.51	333
20	25 47.50	11	67.27	353	26 59.954	50	46.84	328
29	47.39	29	70.80	345	60.004	9	50.12	314
Aug. 8	47.10	45	74.25	331	59.995	67	53.26	295
18	46.65	59	77.56	308	59.928	121	56.21	268
28	46.06	74	80.64	279	59.807	169	58.89	237
Sept. 7	45.32	85	83.43	245	59.638	211	61.26	199
17	44.47	95	85.88	205	59.427	244	63.25	159
27	43.52	103	87.93	159	59.183	269	64.84	115
Okt. 7	42.49	108	89.52	110	58.914	282	65.99	66
17	41.41	110	90.62	56	58.632	285	66.65	17
27	40.31	110	91.18	1	58.347	278	66.82	34
Nov. 6	39.21	107	91.19	56	58.069	260	66.48	85
16	38.14	101	90.63	113	57.809	234	65.63	135
26	37.13	92	89.50	168	57.575	199	64.28	183
Dez. 6	36.21	80	87.82	219	57.376	157	62.45	225
16	35.41	66	85.63	263	57.219	110	60.20	261
26	34.75	50	83.00	300	57.109	60	57.59	289
36	34.25		80.00		57.049		54.70	
Mittl. Ort	42.60		69.97		57.673		47.17	
sec δ, tg δ	4.639		+4.530		1.455		+1.057	
a, *a′*	−2.0		+10.8		+1.9		+10.9	
b, *b′*	+0.16		+ 0.84		+0.04		+ 0.84	

[1] Die jährliche Parallaxe (0″174) ist bereits berücksichtigt.

Scheinbare Sternörter 1947

Tag		758) 33 Cygni AR.		Dekl.		760) 24 Vulpeculae AR.		Dekl.		761) α^2 Capricorni AR.		Dekl.		765) γ Cygni AR.		Dekl.	
1947		$20^h 12^m$		$+56° 23'$		$20^h 14^m$		$+24° 30'$		$20^h 15^m$		$-12° 42'$		$20^h 20^m$		$+40° 4'$	
		s		″		s		″		s		″		s		″	
Jan.	1	7.126	72	78.23	319	28.713	20	20.72	234	4.612	56	46.93	39	17.117	19	68.77	284
	11	7.054	4	75.04	334	28.733	59	18.38	238	4.668	92	47.32	34	17.098	28	65.93	294
	21	7.050	66	71.70	336	28.792	96	16.00	235	4.760	126	47.66	25	17.126	76	62.99	295
	31	7.116	135	68.34	325	28.888	133	13.65	221	4.886	157	47.91	15	17.202	122	60.04	283
Febr.	10	7.251	201	65.09	302	29.021	168	11.44	199	5.043	186	48.06	1	17.324	166	57.21	261
	20	7.452	262	62.07	267	29.189	200	9.45	167	5.229	213	48.07	15	17.490	208	54.60	227
März	2	7.714	317	59.40	222	29.389	230	7.78	128	5.442	237	47.92	33	17.698	247	52.33	186
	12	8.031	364	57.18	169	29.619	256	6.50	85	5.679	260	47.59	51	17.945	280	50.47	136
	22	8.395	401	55.49	109	29.875	278	5.65	37	5.939	279	47.08	70	18.225	308	49.11	81
April	1	8.796	428	54.40	47	30.153	296	5.28	12	6.218	295	46.38	88	18.533	331	48.30	24
	11	9.224	444	53.93	17	30.449	309	5.40	61	6.513	307	45.50	103	18.864	345	48.06	34
	21	9.668	448	54.10	80	30.758	314	6.01	107	6.820	316	44.47	116	19.209	352	48.40	90
Mai	1	10.116	439	54.90	139	31.072	315	7.08	150	7.136	317	43.31	124	19.561	351	49.30	143
	11	10.555	418	56.29	193	31.387	307	8.58	186	7.453	314	42.07	129	19.912	341	50.73	190
	21	10.973	387	58.22	239	31.694	293	10.44	217	7.767	303	40.78	129	20.253	322	52.63	232
	31	11.360	345	60.61	279	31.987	272	12.61	242	8.070	286	39.49	125	20.575	295	54.95	264
Juni	10	11.705	293	63.40	309	32.259	243	15.03	257	8.356	262	38.24	118	20.870	262	57.59	291
	20	11.998	234	66.49	332	32.502	209	17.60	267	8.618	232	37.06	106	21.132	220	60.50	308
	30	12.232	169	69.81	345	32.711	169	20.27	270	8.850	196	36.00	92	21.352	174	63.58	317
Juli	10	12.401	101	73.26	350	32.880	126	22.97	265	9.046	155	35.08	76	21.526	123	66.75	318
	20	12.502	30	76.76	347	33.006	80	25.62	254	9.201	110	34.32	60	21.649	70	69.93	313
	29	[26] 12.532	42	80.23	335	[26] 33.086	33	28.16	239	[26] 9.311	65	33.72	42	[28] 21.719	16	73.06	300
Aug.	8	12.490	110	83.58	316	33.119	14	30.55	218	9.376	19	33.30	26	21.735	37	76.06	280
	18	12.380	174	86.74	291	33.105	58	32.73	193	9.395	25	33.04	10	21.698	87	78.86	255
	28	12.206	232	89.65	259	33.047	98	34.66	165	9.370	65	32.94	4	21.611	133	81.41	224
Sept.	7	11.974	283	92.24	222	32.949	132	36.31	134	9.305	99	32.98	16	21.478	172	83.65	190
	17	11.691	324	94.46	180	32.817	158	37.65	100	9.206	127	33.14	24	21.306	204	85.55	151
	27	11.367	353	96.26	133	32.659	177	38.65	66	9.079	146	33.38	32	21.102	226	87.06	109
Okt.	7	11.014	371	97.59	83	32.482	188	39.31	29	8.933	155	33.70	37	20.876	240	88.15	65
	17	10.643	377	98.42	31	32.294	189	39.60	8	8.778	155	34.07	40	20.636	244	88.80	18
	27	10.266	371	98.73	24	32.105	180	39.52	46	8.623	145	34.47	42	20.392	238	88.98	30
Nov.	6	9.895	351	98.49	78	31.925	164	39.06	83	8.478	128	34.89	44	20.154	222	88.68	78
	16	9.544	322	97.71	133	31.761	140	38.23	119	8.350	102	35.33	44	19.932	199	87.90	124
	26	9.222	281	96.38	184	31.621	111	37.04	152	8.248	72	35.77	44	19.733	168	86.66	169
Dez.	6	8.941	232	94.54	230	31.510	78	35.52	182	8.176	37	36.21	44	19.565	131	84.97	209
	16	8.709	175	92.24	271	31.432	41	33.70	206	8.139	2	36.65	42	19.434	90	82.88	242
	26	8.534	111	89.53	303	31.391	2	31.64	224	8.137	37	37.07	40	19.344	46	80.46	270
	36	8.423		86.50		31.389		29.40		8.174		37.47		19.298		77.76	
Mittl. Ort		9.959		77.86		30.919		24.24		6.892		37.99		19.476		69.95	
sec δ, tg δ		1.807		+1.505		1.099		+0.456		1.025		−0.226		1.307		+0.842	
a, a'		+1.4		+10.9		+2.6		+11.1		+3.3		+11.1		+2.2		+11.5	
b, b'		+0.05		+ 0.84		+0.02		+ 0.83		−0.01		+ 0.83		+0.03		+ 0.82	

Tag	764) α Pavonis				1535) 42 Cygni				767) ϑ Cephei				768) ε Delphini			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$20^h\ 21^m$		$-56°\ 54'$		$20^h\ 27^m$		$+36°\ 16'$		$20^h\ 28^m$		$+62°\ 48'$		$20^h\ 30^m$		$+11°\ 7'$	
	s		"		s		"		s		"		s		"	
Jan. 1	24.464	54	38.47	218	16.709	17	35.22	269	38.51	15	57.92	313	38.663	22	13.68	166
11	24.518	121	36.29	230	16.692	$\overline{27}$	32.53	279	38.36	7	54.79	333	38.685	57	12.02	168
21	24.639	187	33.99	238	16.719	71	29.74	280	38.29	$\overline{2}$	51.46	340	38.742	90	10.34	163
31	24.826	247	31.61	239	16.790	115	26.94	269	38.31	11	48.06	335	38.832	124	8.71	150
Febr. 10	25.073	302	29.22	235	16.905	156	24.25	248	38.42	19	44.71	317	38.956	155	7.21	131
20	25.375	353	26.87	226	17.061	196	21.77	216	38.61	26	41.54	287	39.111	184	5.90	106
März 2	25.728	397	24.61	214	17.257	233	19.61	176	38.87	34	38.67	246	39.295	211	4.84	74
12	26.125	437	22.47	196	17.490	265	17.85	128	39.21	41	36.21	195	39.506	237	4.10	39
22	26.562	470	20.51	175	17.755	293	16.57	76	39.62	45	34.26	137	39.743	260	3.71	0
April 1	27.032	497	18.76	152	18.048	316	15.81	21	40.07	49	32.89	75	40.003	278	3.71	38
11	27.529	516	17.24	123	18.364	331	15.60	$\overline{35}$	40.56	52	32.14	10	40.281	293	4.09	76
21	28.045	528	16.01	93	18.695	340	15.95	89	41.08	52	32.04	$\overline{53}$	40.574	303	4.85	112
Mai 1	28.573	529	15.08	61	19.035	341	16.84	140	41.60	52	32.57	114	40.877	307	5.97	144
11	29.102	522	14.47	26	19.376	333	18.24	186	42.12	50	33.71	170	41.184	304	7.41	170
21	29.624	504	14.21	$\overline{9}$	19.709	318	20.10	225	42.62	46	35.41	222	41.488	294	9.11	192
31	30.128	474	14.30	44	20.027	294	22.35	257	43.08	41	37.63	265	41.782	278	11.03	208
Juni 10	30.602	434	14.74	79	20.321	262	24.92	282	43.49	36	40.28	301	42.060	254	13.11	216
20	31.036	383	15.53	112	20.583	225	27.74	298	43.85	28	43.29	328	42.314	225	15.27	220
30	31.419	322	16.65	141	20.808	181	30.72	308	44.13	21	46.57	346	42.539	190	17.47	216
Juli 10	31.741	255	18.06	166	20.989	134	33.80	308	44.34	13	50.03	356	42.729	149	19.63	209
20	31.996	180	19.72	186	21.123	83	36.88	303	44.47	4	53.59	358	42.878	107	21.72	197
29*)	(28) 32.176	102	21.58	199	21.206	30	39.91	290	(30) 44.51	$\overline{4}$	57.17	350	42.985	62	23.69	180
Aug. 8	32.278	23	23.57	206	(30) 21.236	$\overline{20}$	42.81	270	44.47	12	60.67	336	(30) 43.047	18	25.49	160
18	32.301	$\overline{54}$	25.63	205	21.216	69	45.51	247	44.35	20	64.03	314	43.065	$\overline{26}$	27.09	138
28	32.247	125	27.68	196	21.147	113	47.98	217	44.15	27	67.17	286	43.039	65	28.47	114
Sept. 7	32.122	189	29.64	178	21.034	152	50.15	184	43.88	33	70.03	251	42.974	99	29.61	89
17	31.933	241	31.42	154	20.882	183	51.99	146	43.55	39	72.54	211	42.875	127	30.50	64
27	31.692	280	32.96	123	20.699	206	53.45	107	43.16	42	74.65	166	42.748	147	31.14	37
Okt. 7	31.412	302	34.19	87	20.493	219	54.52	64	42.74	46	76.31	117	42.601	158	31.51	10
17	31.110	309	35.06	46	20.274	225	55.16	20	42.28	46	77.48	64	42.443	161	31.61	$\overline{15}$
27	30.801	298	35.52	3	20.049	219	55.36	$\overline{26}$	41.82	47	78.12	8	42.282	154	31.46	42
Nov. 6	30.503	272	35.55	$\overline{40}$	19.830	205	55.10	72	41.35	45	78.20	$\overline{49}$	42.128	141	31.04	67
16	30.231	232	35.15	82	19.625	183	54.38	116	40.90	42	77.71	105	41.987	121	30.37	91
26	29.999	181	34.33	121	19.442	155	53.22	158	40.48	39	76.66	160	41.866	94	29.46	113
Dez. 6	29.818	121	33.12	156	19.287	121	51.64	196	40.09	33	75.06	210	41.772	64	28.33	132
16	29.697	55	31.56	185	19.166	83	49.68	229	39.76	26	72.96	255	41.708	31	27.01	149
26	29.642	$\overline{14}$	29.71	208	19.083	40	47.39	255	39.50	20	70.41	292	41.677	$\overline{3}$	25.52	159
36	29.656		27.63		19.043		44.84		39.30		67.49		41.680		23.93	
Mittl. Ort	28.018		24.44		18.997		36.70		41.67		56.02		40.795		19.16	
sec δ, tg δ	1.831		—1.534		1.240		+0.734		2.189		+1.947		1.019		+0.197	
a, *a'*	+4.7		+11.6		+2.3		+12.0		+1.0		+12.1		+2.9		+12.2	
b, *b'*	—0.06		+ 0.82		+0.03		+ 0.80		+0.08		+ 0.80		+0.01		+ 0.79	

*) Bei Stern 1535), 767) und 768) lies Juli 30.

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Tag	770) 73 Draconis AR.		770) 73 Draconis Dekl.		769) α Indi AR.		769) α Indi Dekl.		1539) 29 Vulpeculae AR.		1539) 29 Vulpeculae Dekl.		773) υ Capricorni AR.		773) υ Capricorni Dekl.	
1947	$20^h\ 32^m$		+74° 46′		$20^h\ 33^m$		−47° 28′		$20^h\ 36^m$		+21° 0′		$20^h\ 36^m$		−18° 19′	
	s		″		s		″		s		″		s		″	
Jan. 1	9.03	36	27.20	306	47.895	40	54.62	167	7.050	5	46.97	208	59.799	37	46.41	2
11	8.67	22	24.14	331	47.935	94	52.95	183	7.055	40	44.89	215	59.836	73	46.43	7
21	8.45	7	20.83	342	48.029	144	51.12	192	7.095	77	42.74	212	59.909	107	46.36	16
31	8.38	10	17.41	342	48.173	191	49.20	198	7.172	112	40.62	201	60.016	140	46.20	28
Febr. 10	8.48	24	13.99	327	48.364	236	47.22	201	7.284	147	38.61	181	60.156	171	45.92	41
20	8.72	39	10.72	301	48.600	278	45.21	199	7.431	179	36.80	154	60.327	200	45.51	54
März 2	9.11	53	7.71	262	48.878	314	43.22	194	7.610	210	35.26	118	60.527	226	44.97	69
12	9.64	64	5.09	213	49.192	348	41.28	186	7.820	237	34.08	78	60.753	252	44.28	84
22	10.28	73	2.96	158	49.540	378	39.42	174	8.057	263	33.30	35	61.005	275	43.44	98
April 1	11.01	79	1.38	97	49.918	402	37.68	158	8.320	283	32.95	12	61.280	294	42.46	110
11	11.80	84	0.41	33	50.320	422	36.10	140	8.603	300	33.07	58	61.574	311	41.36	120
21	12.64	85	0.08	32	50.742	435	34.70	118	8.903	310	33.65	101	61.885	321	40.16	128
Mai 1	13.49	83	0.40	93	51.177	441	33.52	93	9.213	314	34.66	142	62.206	328	38.88	130
11	14.32	79	1.33	151	51.618	438	32.59	65	9.527	311	36.08	177	62.534	328	37.58	130
21	15.11	72	2.84	205	52.056	427	31.94	36	9.838	301	37.85	207	62.862	320	36.28	125
31	15.83	64	4.89	251	52.483	407	31.58	5	10.139	283	39.92	230	63.182	306	35.03	116
Juni 10	16.47	53	7.40	289	52.890	376	31.53	26	10.422	259	42.22	246	63.488	284	33.87	104
20	17.00	41	10.29	319	53.266	337	31.79	57	10.681	227	44.68	255	63.772	256	32.83	89
30	17.41	28	13.48	341	53.603	289	32.36	86	10.908	191	47.23	258	64.028	221	31.94	71
Juli 10	17.69	15	16.89	355	53.892	235	33.22	112	11.099	150	49.81	255	64.249	181	31.23	52
20	17.84	0	20.44	360	54.127	174	34.34	134	11.249	105	52.36	245	64.430	136	30.71	33
30	17.84	13	24.04	356	54.301	111	35.68	151	11.354	59	54.81	231	64.566	90	30.38	14
Aug. 8	[31] 17.71	27	27.60	345	[31] 54.412	45	37.19	163	[1] 11.413	12	57.12	211	[1] 64.656	42	30.24	3
18	17.44	41	31.05	327	54.457	19	38.82	168	11.425	31	59.23	188	64.698	5	30.27	19
28	17.03	52	34.32	301	54.438	78	40.50	166	11.394	72	61.11	162	64.693	47	30.46	32
Sept. 7	16.51	62	37.33	270	54.360	131	42.16	157	11.322	108	62.73	133	64.646	85	30.78	42
17	15.89	71	40.03	231	54.229	176	43.73	142	11.214	138	64.06	102	64.561	116	31.20	48
27	15.18	79	42.34	188	54.053	209	45.15	119	11.076	158	65.08	70	64.445	138	31.68	52
Okt. 7	14.39	84	44.22	139	53.844	229	46.34	92	10.918	171	65.78	37	64.307	152	32.20	52
17	13.55	87	45.61	87	53.615	236	47.26	61	10.747	175	66.15	2	64.155	156	32.72	50
27	12.68	88	46.48	32	53.379	230	47.87	26	10.572	171	66.17	32	63.999	150	33.22	45
Nov. 6	11.80	87	46.80	26	53.149	211	48.13	9	10.401	158	65.85	65	63.849	136	33.67	40
16	10.93	82	46.54	84	52.938	180	48.04	44	10.243	139	65.20	99	63.713	113	34.07	34
26	10.11	77	45.70	141	52.758	141	47.60	78	10.104	113	64.21	130	63.600	86	34.41	27
Dez. 6	9.34	68	44.29	195	52.617	94	46.82	109	9.991	84	62.91	158	63.514	53	34.68	20
16	8.66	57	42.34	243	52.523	43	45.73	135	9.907	51	61.33	181	63.461	19	34.88	12
26	8.09	45	39.91	283	52.480	9	44.38	157	9.856	15	59.52	199	63.442	18	35.00	6
36	7.64		37.08		52.489		42.81		9.841		57.53		63.460		35.06	
Mittl. Ort	13.75		24.09		50.841		40.39		9.191		50.71		62.064		35.84	
sec δ, tg δ	3.808		+3.674		1.480		−1.090		1.071		+0.384		1.053		−0.331	
a, *a′*	−0.8		+12.4		+4.2		+12.5		+2.7		+12.6		+3.4		+12.7	
b, *b′*	+0.15		+ 0.79		−0.05		+ 0.78		+0.02		+ 0.78		−0.01		+ 0.77	

Tag	774) α Delphini AR.		774) α Delphini Dekl.		777) α Cygni AR.		777) α Cygni Dekl.		775) β Pavonis AR.		775) β Pavonis Dekl.		780) ε Cygni AR.		780) ε Cygni Dekl.	
1947	20h 37m		+15° 43′		20h 39m		+45° 5′		20h 40m		−66° 23′		20h 44m		+33° 45′	
	s		″		s		″		s		″		s		″	
Jan. 1	8.385	11	21.61	185	34.998	57	24.74	283	8.11	0	60.22	260	1.672	27	73.43	249
11	8.396	46	19.76	189	34.941	8	21.91	299	8.11	8	57.62	277	1.645	14	70.94	262
21	8.442	81	17.87	186	34.933	44	18.92	304	8.19	18	54.85	287	1.659	55	68.32	265
31	8.523	114	16.01	173	34.977	95	15.88	298	8.37	26	51.98	291	1.714	97	65.67	256
Febr. 10	8.637	146	14.28	155	35.072	144	12.90	279	8.63	35	49.07	286	1.811	137	63.11	238
20	8.783	178	12.73	128	35.216	193	10.11	249	8.98	42	46.21	276	1.948	177	60.73	209
März 2	8.961	207	11.45	95	35.409	239	7.62	210	9.40	48	43.45	259	2.125	214	58.64	172
12	9.168	234	10.50	57	35.648	278	5.52	163	9.88	55	40.86	239	2.339	247	56.92	127
22	9.402	258	9.93	17	35.926	313	3.89	108	10.43	59	38.47	212	2.586	277	55.65	77
April 1	9.660	279	9.76	25	36.239	342	2.81	50	11.02	64	36.35	183	2.863	303	54.88	25
11	9.939	294	10.01	67	36.581	361	2.31	9	11.66	66	34.52	148	3.166	321	54.63	29
21	10.233	305	10.68	106	36.942	373	2.40	68	12.32	69	33.04	111	3.487	333	54.92	81
Mai 1	10.538	309	11.74	143	37.315	375	3.08	123	13.01	69	31.93	72	3.820	337	55.73	132
11	10.847	308	13.17	174	37.690	368	4.31	175	13.70	69	31.21	30	4.157	334	57.05	177
21	11.155	298	14.91	199	38.058	350	6.06	220	14.39	67	30.91	12	4.491	322	58.82	216
31	11.453	282	16.90	218	38.408	325	8.26	259	15.06	63	31.03	55	4.813	303	60.98	248
Juni 10	11.735	258	19.08	231	38.733	290	10.85	289	15.69	59	31.58	95	5.116	274	63.46	273
20	11.993	229	21.39	238	39.023	248	13.74	312	16.28	52	32.53	133	5.390	240	66.19	291
30	12.222	193	23.77	237	39.271	199	16.86	326	16.80	44	33.86	168	5.630	200	69.10	301
Juli 10	12.415	154	26.14	232	39.470	147	20.12	332	17.24	35	35.54	197	5.830	154	72.11	303
20	12.569	109	28.46	221	39.617	90	23.44	331	17.59	26	37.51	220	5.984	105	75.14	298
30	[1] 12.678	65	30.67	205	[2] 39.707	32	26.75	321	[2] 17.85	16	39.71	237	[3] 6.089	55	78.12	287
Aug. 8	12.743	20	32.72	186	39.739	25	29.96	305	18.01	5	42.08	245	6.144	5	80.99	270
18	12.763	25	34.58	163	39.714	79	33.01	283	18.06	6	44.53	244	6.149	44	83.69	247
28	12.738	64	36.21	139	39.635	129	35.84	255	18.00	15	46.97	234	6.105	88	86.16	220
Sept. 7	12.674	100	37.60	111	39.506	174	38.39	222	17.85	24	49.31	215	6.017	128	88.36	189
17	12.574	128	38.71	84	39.332	210	40.61	183	17.61	32	51.46	188	5.889	160	90.25	153
27	12.446	149	39.55	54	39.122	238	42.44	141	17.29	38	53.34	152	5.729	185	91.78	116
Okt. 7	12.297	161	40.09	24	38.884	257	43.85	97	16.91	42	54.86	110	5.544	201	92.94	75
17	12.136	165	40.33	5	38.627	265	44.82	48	16.49	44	55.96	63	5.343	207	93.69	32
27	11.971	161	40.28	36	38.362	264	45.30	2	16.05	44	56.59	13	5.136	206	94.01	11
Nov. 6	11.810	149	39.92	65	38.098	253	45.28	52	15.61	41	56.72	39	4.930	195	93.90	54
16	11.661	129	39.27	93	37.845	233	44.76	102	15.20	37	56.33	90	4.735	177	93.36	98
26	11.532	104	38.34	119	37.612	205	43.74	150	14.83	31	55.43	137	4.558	152	92.38	139
Dez. 6	11.428	74	37.15	143	37.407	170	42.24	195	14.52	23	54.06	180	4.406	121	90.99	176
16	11.354	42	35.72	163	37.237	129	40.29	234	14.29	15	52.26	217	4.285	88	89.23	209
26	11.312	9	34.09	177	37.108	85	37.95	265	14.14	6	50.09	247	4.197	49	87.14	236
36	11.303		32.32		37.023		35.30		14.08		47.62		4.148		84.78	
Mittl. Ort	10.507		26.26		37.410		24.48		12.45		44.09		3.890		74.80	
sec δ, tg δ	1.039		+0.282		1.416		+1.003		2.497		−2.288		1.203		+0.669	
a, *a′*	+2.8		+12.7		+2.0		+12.9		+5.4		+12.9		+2.4		+13.2	
b, *b′*	+0.01		+ 0.77		+0.04		+ 0.77		−0.10		+ 0.77		+0.03		+ 0.75	

Scheinbare Sternörter 1947

Tag	783) η Cephei AR.		Dekl.		781) ε Aquarii AR.		Dekl.		785) β Indi AR.		Dekl.		786) 32 Vulpeculae AR.		Dekl.	
1947	20h 44m		+61° 37′		20h 44m		−9° 41′		20h 50m		−58° 39′		20h 52m		+27° 50′	
	s		″		s		″		s		″		s		″	
Jan. 1	9.81	17	59.60	298	46.310	26	37.07	51	37.545	3	37.20	221	15.818	23	76.07	226
11	9.64	9	56.62	321	46.336	61	37.58	45	37.542	66	34.99	241	15.795	14	73.81	237
21	9.55	0	53.41	332	46.397	92	38.03	35	37.608	134	32.58	255	15.809	53	71.44	239
31	9.55	7	50.09	331	46.489	124	38.38	24	37.742	198	30.03	261	15.862	91	69.05	230
Febr. 10	9.62	16	46.78	316	46.613	154	38.62	8	37.940	259	27.42	262	15.953	128	66.75	213
20	9.78	23	43.62	289	46.767	183	38.70	9	38.199	316	24.80	258	16.081	164	64.62	186
März 2	10.01	30	40.73	251	46.950	210	38.61	30	38.515	368	22.22	248	16.245	199	62.76	151
12	10.31	37	38.22	204	47.160	236	38.31	51	38.883	415	19.74	233	16.444	232	61.25	109
22	10.68	43	36.18	148	47.396	258	37.80	72	39.298	456	17.41	214	16.676	260	60.16	63
April 1	11.11	46	34.70	87	47.654	279	37.08	93	39.754	491	15.27	191	16.936	286	59.53	14
11	11.57	49	33.83	24	47.933	297	36.15	112	40.245	519	13.36	164	17.222	305	59.39	36
21	12.06	51	33.59	39	48.230	308	35.03	128	40.764	539	11.72	132	17.527	318	59.75	85
Mai 1	12.57	51	33.98	101	48.538	315	33.75	140	41.303	550	10.40	98	17.845	325	60.60	131
11	13.08	49	34.99	158	48.853	317	32.35	148	41.853	549	9.42	62	18.170	324	61.91	172
21	13.57	47	36.57	211	49.170	310	30.87	151	42.402	538	8.80	24	18.494	315	63.63	207
31	14.04	42	38.68	256	49.480	297	29.36	149	42.940	516	8.56	16	18.809	299	65.70	237
Juni 10	14.46	37	41.24	294	49.777	277	27.87	143	43.456	480	8.72	54	19.108	274	68.07	260
20	14.83	30	44.18	323	50.054	250	26.44	133	43.936	433	9.26	91	19.382	242	70.67	274
30	15.13	24	47.41	345	50.304	217	25.11	120	44.369	376	10.17	126	19.624	206	73.41	282
Juli 10	15.37	16	50.86	357	50.521	178	23.91	104	44.745	309	11.43	157	19.830	163	76.23	282
20	15.53	8	54.43	361	50.699	136	22.87	86	45.054	234	13.00	182	19.993	117	79.05	277
30	15.61	0	58.04	357	50.835	91	22.01	67	45.288	154	14.82	202	20.110	70	81.82	265
Aug. 8	[3] 15.61	8	61.61	346	[3] 50.926	45	21.34	48	[4] 45.442	71	16.84	214	[5] 20.180	21	84.47	248
18	15.53	16	65.07	326	50.971	1	20.86	30	45.513	10	18.98	219	20.201	25	86.95	226
28	15.37	23	68.33	299	50.972	41	20.56	13	45.503	89	21.17	215	20.176	68	89.21	200
Sept. 7	15.14	29	71.32	268	50.931	78	20.43	3	45.414	161	23.32	203	20.108	107	91.21	170
17	14.85	34	74.00	230	50.853	107	20.46	15	45.253	222	25.35	181	20.001	138	92.91	138
27	14.51	39	76.30	186	50.746	130	20.61	27	45.031	270	27.16	153	19.863	163	94.29	103
Okt. 7	14.12	42	78.16	138	50.616	144	20.88	35	44.761	303	28.69	118	19.700	179	95.32	65
17	13.70	43	79.54	87	50.472	149	21.23	42	44.458	320	29.87	78	19.521	186	95.97	28
27	13.27	44	80.41	32	50.323	144	21.65	47	44.138	319	30.65	33	19.335	185	96.25	12
Nov. 6	12.83	43	80.73	25	50.179	132	22.12	50	43.819	303	30.98	12	19.150	176	96.13	52
16	12.40	41	80.48	82	50.047	112	22.62	53	43.516	271	30.86	58	18.974	160	95.61	90
26	11.99	37	79.66	137	49.935	87	23.15	55	43.245	227	30.28	102	18.814	137	94.71	127
Dez. 6	11.62	33	78.29	189	49.848	58	23.70	55	43.018	172	29.26	142	18.677	109	93.44	161
16	11.29	27	76.40	236	49.790	25	24.25	54	42.846	109	27.84	178	18.568	77	91.83	189
26	11.02	21	74.04	276	49.765	8	24.79	51	42.737	43	26.06	208	18.491	43	89.94	213
36	10.81		71.28		49.773		25.30		42.694		23.98		18.448		87.81	
Mittl. Ort	12.84		56.97		48.470		27.73		40.988		20.73		17.958		78.27	
sec δ, tg δ	2.105		+1.852		1.014		−0.171		1.922		−1.642		1.131		+0.528	
a, *a′*	+1.2		+13.2		+3.2		+13.2		+4.7		+13.6		+2.6		+13.7	
b, *b′*	+0.08		+ 0.75		−0.01		+ 0.75		−0.07		+ 0.74		+0.02		+ 0.73	

Tag	788) ν Cygni AR.		788) ν Cygni Dekl.		790) ζ Microscopii AR.		790) ζ Microscopii Dekl.		793) 61 Cygni pr[1]) AR.		793) 61 Cygni pr[1]) Dekl.		795) Br 2777 Ceph AR.		795) Br 2777 Ceph Dekl.	
1947	$20^h\ 55^m$		+40° 57′		$20^h\ 59^m$		−38° 50′		$21^h\ 4^m$		+38° 28′		$21^h\ 6^m$		+77° 54′	
	s		″		s		″		s		″		s		″	
Jan. 1	9.417	60	44.60	263	32.600	12	38.00	115	28.823	48	76.02	242	30.19	62	48.47	272
11	9.357	16	41.97	280	32.612	55	36.85	134	28.775	6	73.60	259	29.57	45	45.75	305
21	9.341	31	39.17	286	32.667	97	35.51	148	28.769	37	71.01	266	29.12	26	42.70	327
31	9.372	77	36.31	283	32.764	138	34.03	160	28.806	82	68.35	262	28.86	6	39.43	337
Febr. 10	9.449	124	33.48	266	32.902	177	32.43	169	28.888	126	65.73	246	28.80	13	36.06	332
20	9.573	169	30.82	239	33.079	213	30.74	175	29.014	169	63.27	221	28.93	33	32.74	316
März 2	9.742	212	28.43	203	33.292	249	28.99	179	29.183	211	61.06	185	29.26	51	29.58	287
12	9.954	252	26.40	159	33.541	281	27.20	179	29.394	250	59.21	142	29.77	67	26.71	246
22	10.206	287	24.81	107	33.822	311	25.41	178	29.644	285	57.79	92	30.44	81	24.25	197
April 1	10.493	316	23.74	52	34.133	338	23.63	171	29.929	315	56.87	39	31.25	92	22.28	141
11	10.809	339	23.22	4	34.471	360	21.92	162	30.244	338	56.48	16	32.17	99	20.87	80
21	11.148	354	23.26	61	34.831	377	20.30	149	30.582	353	56.64	72	33.16	104	20.07	17
Mai 1	11.502	360	23.87	116	35.208	388	18.81	132	30.935	362	57.36	124	34.20	104	19.90	45
11	11.862	357	25.03	165	35.596	391	17.49	112	31.297	360	58.60	173	35.24	101	20.35	106
21	12.219	345	26.68	209	35.987	388	16.37	88	31.657	351	60.33	216	36.25	95	21.41	163
31	12.564	325	28.77	248	36.375	374	15.49	62	32.008	332	62.49	253	37.20	87	23.04	214
Juni 10	12.889	295	31.25	278	36.749	352	14.87	34	32.340	305	65.02	283	38.07	75	25.18	258
20	13.184	258	34.03	301	37.101	322	14.53	4	32.645	270	67.85	305	38.82	62	27.76	296
30	13.442	215	37.04	315	37.423	283	14.49	23	32.915	229	70.90	319	39.44	47	30.72	325
Juli 10	13.657	166	40.19	322	37.706	238	14.72	52	33.144	182	74.09	325	39.91	31	33.97	347
20	13.823	114	43.41	322	37.944	187	15.24	78	33.326	132	77.34	324	40.22	14	37.44	360
30	[6] 13.937	59	46.63	314	38.131	132	16.02	99	33.458	79	80.58	317	40.36	3	41.04	365
Aug. 8*)	13.996	5	49.77	299	[7] 38.263	75	17.01	117	[8] 33.537	27	83.75	302	40.33	20	44.69	362
18	14.001	47	52.76	279	38.338	18	18.18	130	33.564	24	86.77	281	[9] 40.13	37	48.31	352
28	13.954	96	55.55	252	38.356	36	19.48	137	33.540	72	89.58	255	39.76	52	51.83	333
Sept. 7	13.858	139	58.07	221	38.320	85	20.85	137	33.468	115	92.13	225	39.24	66	55.16	308
17	13.719	176	60.28	185	38.235	127	22.22	132	33.353	150	94.38	190	38.58	79	58.24	277
27	13.543	204	62.13	146	38.108	159	23.54	119	33.203	179	96.28	152	37.79	90	61.01	238
Okt. 7	13.339	224	63.59	103	37.949	181	24.73	103	33.024	199	97.80	110	36.89	98	63.39	195
17	13.115	235	64.62	58	37.768	192	25.76	80	32.825	209	98.90	67	35.91	105	65.34	145
27	12.880	235	65.20	10	37.576	191	26.56	54	32.616	212	99.57	21	34.86	109	66.79	91
Nov. 6	12.645	228	65.30	38	37.385	180	27.10	27	32.404	204	99.78	26	33.77	110	67.70	35
16	12.417	212	64.92	85	37.205	159	27.37	2	32.200	190	99.52	71	32.67	107	68.05	25
26	12.205	189	64.07	132	37.046	129	27.35	30	32.010	169	98.81	116	31.60	103	67.80	84
Dez. 6	12.016	158	62.75	175	36.917	94	27.05	57	31.841	140	97.65	158	30.57	95	66.96	142
16	11.858	123	61.00	214	36.823	54	26.48	83	31.701	107	96.07	195	29.62	85	65.54	196
26	11.735	84	58.86	245	36.769	12	25.65	106	31.594	70	94.12	225	28.77	71	63.58	243
36	11.651		56.41		36.757		24.59		31.524		91.87		28.06		61.15	
Mittl. Ort	11.707		44.38		35.111		23.18		31.058		76.13		35.60		43.06	
sec δ, tg δ	1.324		+0.868		1.284		−0.805		1.278		+0.795		4.775		+4.669	
a, a'	+2.2		+13.9		+3.8		+14.1		+2.3		+14.4		−1.2		+14.6	
b, b'	+0.04		+ 0.72		−0.04		+ 0.71		+0.04		+ 0.69		+0.23		+ 0.69	

[1]) Die jährliche Parallaxe (0.″299) ist bereits berücksichtigt.

*) Bei Stern 795) lies Aug. 9.

Scheinbare Sternörter 1947

Tag		794) ν Aquarii AR.		794) ν Aquarii Dekl.		797) ζ Cygni AR.		797) ζ Cygni Dekl.		800) α Equulei AR.		800) α Equulei Dekl.		803) α Cephei AR.		803) α Cephei Dekl.	
1947		$21^h\ 6^m$		$-11°\ 35'$		$21^h\ 10^m$		$+30°\ 0'$		$21^h\ 13^m$		$+5°\ 1'$		$21^h\ 17^m$		$+62°\ 21'$	
		s		"		s		"		s		"		s		"	
Jan.	1	40.408	8	25.10	37	38.593	44	29.83	222	8.435	8	32.98	121	15.93	23	42.43	270
	11	40.416	40	25.47	28	38.549	7	27.61	236	8.427	$\overline{23}$	31.77	121	15.70	15	39.73	301
	21	40.456	72	25.75	19	38.542	$\overline{30}$	25.25	241	8.450	53	30.56	116	15.55	8	36.72	321
	31	40.528	103	25.94	5	38.572	68	22.84	236	8.503	85	29.40	106	15.47	$\overline{1}$	33.51	327
Febr.	10	40.631	134	25.99	$\overline{10}$	38.640	107	20.48	221	8.588	116	28.34	89	15.48	9	30.24	322
	20	40.765	163	25.89	27	38.747	146	18.27	197	8.704	147	27.45	67	15.57	17	27.02	303
März	2	40.928	193	25.62	47	38.893	183	16.30	164	8.851	176	26.78	41	15.74	25	23.99	273
	12	41.121	220	25.15	67	39.076	218	14.66	125	9.027	206	26.37	12	15.99	33	21.26	231
	22	41.341	246	24.48	88	39.294	251	13.41	79	9.233	233	26.25	$\overline{21}$	16.32	39	18.95	181
April	1	41.587	270	23.60	107	39.545	279	12.62	29	9.466	257	26.46	54	16.71	44	17.14	125
	11	41.857	290	22.53	124	39.824	303	12.33	$\overline{21}$	9.723	279	27.00	86	17.15	48	15.89	64
	21	42.147	306	21,29	138	40.127	319	12.54	70	10.002	295	27.86	116	17.63	51	15.25	1
Mai	1	42.453	317	19.91	149	40.446	330	13.24	118	10.297	306	29.02	143	18.14	53	15.24	$\overline{60}$
	11	42.770	321	18.42	155	40.776	331	14.42	162	10.603	311	30.45	166	18.67	52	15.84	119
	21	43.091	318	16.87	156	41.107	326	16.04	200	10.914	308	32.11	183	19.19	50	17.03	175
	31	43.409	309	15.31	154	41.433	312	18.04	232	11.222	299	33.94	195	19.69	47	18.78	225
Juni	10	43.718	291	13.77	145	41.745	289	20.36	257	11.521	282	35.89	201	20.16	42	21.03	268
	20	44.009	267	12.32	134	42.034	259	22.93	276	11.803	257	37.90	202	20.58	37	23.71	303
	30	44.276	236	10.98	119	42.293	224	25.69	286	12.060	227	39.92	198	20.95	30	26.74	330
Juli	10	44.512	199	9.79	102	42.517	182	28.55	291	12.287	191	41.90	189	21.25	23	30.04	350
	20	44.711	158	8.77	82	42.699	136	31.46	287	12.478	151	43.79	175	21.48	15	33.54	360
	30	44.869	113	7.95	62	42.835	88	34.33	278	12.629	107	45.54	158	21.63	7	37.14	363
Aug.	9	44.982	67	7.33	41	42.923	40	37.11	263	^{10}12.736	63	47.12	139	^{11}21.70	$\overline{2}$	40.77	358
	18	^{9}45.049	22	6.92	22	^{10}42.963	$\overline{8}$	39.74	243	12.799	19	48.51	118	21.68	9	44.35	345
	28	45.071	$\overline{21}$	6.70	4	42.955	53	42.17	219	12.818	$\overline{22}$	49.69	96	21.59	17	47.80	325
Sept.	7	45.050	60	6.66	$\overline{11}$	42.902	93	44.36	190	12.796	59	50.65	74	21.42	24	51.05	298
	17	44.990	92	6.77	25	42.809	127	46.26	157	12.737	92	51.39	50	21.18	30	54.03	264
	27	44.898	117	7.02	35	42.682	155	47.83	123	12.645	116	51.89	29	20.88	35	56.67	225
Okt.	7	44.781	135	7.37	43	42.527	173	49.06	86	12.529	133	52.18	7	20.53	38	58.92	181
	17	44.646	143	7.80	48	42.354	185	49.92	47	12.396	142	52.25	$\overline{12}$	20.15	42	60.73	132
	27	44.503	142	8.28	51	42.169	187	50.39	7	12.254	143	52.13	33	19.73	43	62.05	79
Nov.	6	44.361	134	8.79	52	41.982	181	50.46	$\overline{34}$	12.111	136	51.80	51	19.30	44	62.84	22
	16	44.227	118	9.31	52	41.801	168	50.12	74	11.975	123	51.29	69	18.86	42	63.06	$\overline{35}$
	26	44.109	96	9.83	50	41.633	149	49.38	113	11.852	103	50.60	84	18.44	40	62.71	92
Dez.	6	44.013	70	10.33	48	41.484	125	48.25	149	11.749	80	49.76	98	18.04	37	61.79	147
	16	43.943	41	10.81	43	41.359	95	46.76	181	11.669	54	48.78	108	17.67	31	60.32	199
	26	43.902	10	11.24	39	41.264	63	44.95	207	11.615	24	47.70	116	17.36	27	58.33	244
	36	43.892		11.63		41.201		42.88		11.591		46.54		17.09		55.89	
Mittl. Ort		42.500		14.85		40.697		31.17		10.440		39.73		18.88		37.97	
sec δ, tg δ		1.021		−0.205		1.155		+0.578		1.004		+0.088		2.156		+1.910	
a, *a'*		+3.3		+14.6		+2.6		+14.8		+3.0		+15.0		+1.4		+15.2	
b, *b'*		−0.01		+ 0.69		+0.03		+ 0.67		0.00		+ 0.67		+0.10		+ 0.65	

Tag	804) ι Pegasi AR.		804) ι Pegasi Dekl.		805) γ Pavonis[1] AR.		805) γ Pavonis[1] Dekl.	
1947	21h 19m		+19° 34′		21h 22m		−65° 36′	
	s		"		s		"	
Jan. 1	36.017	32	33.20	180	1.58	9	46.71	244
11	35.985	1	31.40	189	1.49	1	44.27	272
21	35.986	34	29.51	191	1.48	7	41.55	291
31	36.020	68	27.60	183	1.55	15	38.64	304
Febr. 10	36.088	102	25.77	169	1.70	24	35.60	308
20	36.190	136	24.08	147	1.94	31	32.52	307
März 2	36.326	170	22.61	116	2.25	38	29.45	298
12	36.496	203	21.45	80	2.63	45	26.47	284
22	36.699	233	20.65	40	3.08	51	23.63	263
April 1	36.932	260	20.25	2	3.59	56	21.00	238
11	37.192	283	20.27	45	4.15	60	18.62	207
21	37.475	301	20.72	88	4.75	63	16.55	173
Mai 1	37.776	314	21.60	128	5.38	66	14.82	134
11	38.090	318	22.88	163	6.04	67	13.48	93
21	38.408	315	24.51	194	6.71	66	12.55	49
31	38.723	304	26.45	219	7.37	64	12.06	4
Juni 10	39.027	287	28.64	237	8.01	62	12.02	40
20	39.314	261	31.01	249	8.63	56	12.42	84
30	39.575	228	33.50	254	9.19	49	13.26	125
Juli 10	39.803	192	36.04	254	9.68	43	14.51	163
20	39.995	149	38.58	246	10.11	33	16.14	193
30	40.144	105	41.04	235	10.44	24	18.07	219
Aug. 9	40.249	59	43.39	218	10.68	14	20.26	237
18	40.308	14	45.57	198	10.82	3	22.63	246
28	40.322	29	47.55	174	10.85	6	25.09	246
Sept. 7	40.293	67	49.29	148	10.79	16	27.55	237
17	40.226	100	50.77	119	10.63	24	29.92	217
27	40.126	127	51.96	89	10.39	31	32.09	189
Okt. 7	39.999	145	52.85	59	10.08	37	33.98	153
17	39.854	156	53.44	26	9.71	40	35.51	109
27	39.698	159	53.70	5	9.31	42	36.60	61
Nov. 6	39.539	155	53.65	38	8.89	41	37.21	9
16	39.384	142	53.27	69	8.48	39	37.30	43
26	39.242	125	52.58	99	8.09	35	36.87	95
Dez. 6	39.117	102	51.59	126	7.74	29	35.92	144
16	39.015	77	50.33	150	7.45	22	34.48	188
26	38.938	48	48.83	169	7.23	14	32.60	226
36	38.890		47.14		7.09		30.34	
Mittl. Ort	38.023		36.61		5.31		27.49	
sec δ, tg δ	1.061		+0.356		2.421		−2.205	
a, a'	+2.8		+15.3		+4.9		+15.5	
b, b'	+0.02		+ 0.64		−0.11		+ 0.64	

Tag	806) ζ Capricorni AR.		806) ζ Capricorni Dekl.		809) β Cephei AR.		809) β Cephei Dekl.	
1947	21h 23m		−22° 38′		21h 27m		+70° 19′	
	s		"		s		"	
Jan. 1	36.552	7	44.22	24	55.41	38	46.43	257
11	36.545	27	43.98	38	55.03	29	43.86	294
21	36.572	60	43.60	54	54.74	18	40.92	318
31	36.632	93	43.06	69	54.56	6	37.74	331
Febr. 10	36.725	125	42.37	83	54.50	6	34.43	330
20	36.850	157	41.54	98	54.56	18	31.13	317
März 2	37.007	189	40.56	113	54.74	29	27.96	291
12	37.196	219	39.43	127	55.03	39	25.05	254
22	37.415	248	38.16	139	55.42	49	22.51	206
April 1	37.663	275	36.77	149	55.91	57	20.45	151
11	37.938	298	35.28	156	56.48	62	18.94	93
21	38.236	318	33.72	160	57.10	67	18.01	30
Mai 1	38.554	331	32.12	159	57.77	68	17.71	33
11	38.885	339	30.53	155	58.45	68	18.04	94
21	39.224	340	28.98	146	59.13	66	18.98	151
31	39.564	333	27.52	132	59.79	62	20.49	204
Juni 10	39.897	317	26.20	116	60.41	55	22.53	251
20	40.214	294	25.04	95	60.96	48	25.04	290
30	40.508	264	24.09	73	61.44	40	27.94	322
Juli 10	40.772	227	23.36	50	61.84	29	31.16	346
20	40.999	185	22.86	25	62.13	19	34.62	361
30	41.184	139	22.61	1	62.32	9	38.23	369
Aug. 9	41.323	90	22.60	20	62.41	3	41.92	368
18	41.413	42	22.80	40	62.38	13	45.60	359
28	41.455	4	23.20	56	62.25	23	49.19	344
Sept. 7	41.451	47	23.76	69	62.02	33	52.63	320
17	41.404	84	24.45	76	61.69	41	55.83	290
27	41.320	113	25.21	79	61.28	48	58.73	253
Okt. 7	41.207	135	26.00	78	60.80	55	61.26	211
17	41.072	146	26.78	74	60.25	59	63.37	163
27	40.926	150	27.52	65	59.66	61	65.00	110
Nov. 6	40.776	144	28.17	54	59.05	63	66.10	53
16	40.632	130	28.71	41	58.42	63	66.63	5
26	40.502	110	29.12	27	57.79	60	66.58	65
Dez. 6	40.392	85	29.39	12	57.19	57	65.93	124
16	40.307	55	29.51	2	56.62	50	64.69	178
26	40.252	24	29.49	17	56.12	43	62.91	228
36	40.228		29.32		55.69		60.63	
Mittl. Ort	38.661		31.18		59.02		40.47	
sec δ, tg δ	1.083		−0.417		2.971		+2.796	
a, a'	+3.4		+15.6		+0.8		+15.8	
b, b'	−0.02		+ 0.63		+0.15		+ 0.62	

[1]) Die jährliche Parallaxe (0.″113) ist bereits berücksichtigt.

Scheinbare Sternörter 1947

Tag	808) β Aquarii AR.		808) β Aquarii Dekl.		811) 74 Cygni AR.		811) 74 Cygni Dekl.		810) ν Octantis AR.		810) ν Octantis Dekl.		815) ε Pegasi AR.		815) ε Pegasi Dekl.	
1947	$21^h\ 28^m$		$-5°\ 48'$		$21^h\ 34^m$		$+40°\ 10'$		$21^h\ 35^m$		$-77°\ 37'$		$21^h\ 41^m$		$+9°\ 37'$	
	s		"				"		s		"		s		"	
Jan. 1	44.204	13	28.57	64	47.148	96	30.63	231	33.97	34	58.98	279	33.016	35	46.52	131
11	44.191	16	29.21	57	47.052	57	28.32	253	33.63	18	56.19	310	32.981	7	45.21	134
21	44.207	46	29.78	49	46.995	16	25.79	266	33.45	2	53.09	332	32.974	22	43.87	133
31	44.253	76	30.27	36	46.979	28	23.13	269	33.43	16	49.77	345	32.996	53	42.54	124
Febr. 10	44.329	107	30.63	20	47.007	74	20.44	260	33.59	31	46.32	350	33.049	85	41.30	110
20	44.436	137	30.83	0	47.081	120	17.84	241	33.90	47	42.82	346	33.134	117	40.20	90
März 2	44.573	167	30.83	21	47.201	166	15.43	212	34.37	62	39.36	334	33.251	149	39.30	63
12	44.740	197	30.62	45	47.367	210	13.31	174	34.99	75	36.02	315	33.400	181	38.67	33
22	44.937	226	30.17	70	47.577	251	11.57	128	35.74	87	32.87	291	33.581	212	38.34	0
April 1	45.163	251	29.47	95	47.828	288	10.29	77	36.61	97	29.96	259	33.793	241	38.34	35
11	45.414	275	28.52	117	48.116	318	9.52	24	37.58	106	27.37	223	34.034	266	38.69	71
21	45.689	294	27.35	137	48.434	341	9.28	31	38.64	113	25.14	182	34.300	288	39.40	105
Mai 1	45.983	308	25.98	153	48.775	357	9.59	85	39.77	117	23.32	137	34.588	303	40.45	136
11	46.291	316	24.45	166	49.132	362	10.44	136	40.94	119	21.95	89	34.891	312	41.81	164
21	46.607	316	22.79	174	49.494	360	11.80	182	42.13	119	21.06	39	35.203	314	43.45	186
31	46.923	310	21.05	176	49.854	346	13.62	223	43.32	116	20.67	11	35.517	308	45.31	204
Juni 10	47.233	296	19.29	173	50.200	325	15.85	257	44.48	111	20.78	61	35.825	295	47.35	214
20	47.529	274	17.56	166	50.525	294	18.42	284	45.59	102	21.39	109	36.120	274	49.49	220
30	47.803	246	15.90	155	50.819	257	21.26	304	46.61	91	22.48	155	36.394	246	51.69	220
Juli 10	48.049	211	14.35	140	51.076	212	24.30	316	47.52	77	24.03	195	36.640	212	53.89	215
20	48.260	172	12.95	121	51.288	164	27.46	320	48.29	62	25.98	230	36.852	174	56.04	204
30	48.432	129	11.74	102	51.452	112	30.66	318	48.91	45	28.28	257	37.026	131	58.08	189
Aug. 9	48.561	85	10.72	80	51.564	58	33.84	309	49.36	26	30.85	275	37.157	88	59.97	171
18	[14] 48.646	40	9.92	59	[16] 51.622	6	36.93	293	[16] 49.62	7	33.60	285	[17] 37.245	44	61.68	151
28	48.686	2	9.33	39	51.628	44	39.86	272	49.69	12	36.45	284	37.289	2	63.19	128
Sept. 7	48.684	42	8.94	20	51.584	90	42.58	245	49.57	30	39.29	271	37.291	37	64.47	105
17	48.642	75	8.74	2	51.494	130	45.03	213	49.27	47	42.00	250	37.254	72	65.52	80
27	48.567	102	8.72	14	51.364	164	47.16	178	48.80	61	44.50	217	37.182	99	66.32	56
Okt. 7	48.465	122	8.86	27	51.200	189	48.94	138	48.19	74	46.67	175	37.083	119	66.88	31
17	48.343	133	9.13	37	51.011	207	50.32	97	47.45	82	48.42	126	36.964	133	67.19	8
27	48.210	136	9.50	47	50.804	215	51.29	51	46.63	86	49.68	71	36.831	138	67.27	16
Nov. 6	48.074	132	9.97	54	50.589	217	51.80	5	45.77	88	50.39	13	36.693	137	67.11	38
16	47.942	120	10.51	59	50.372	209	51.85	43	44.89	86	50.52	48	36.556	128	66.73	60
26	47.822	103	11.10	63	50.163	194	51.42	89	44.03	79	50.04	107	36.428	115	66.13	79
Dez. 6	47.719	81	11.73	65	49.969	173	50.53	134	43.24	69	48.97	163	36.313	96	65.34	98
16	47.638	57	12.38	65	49.796	147	49.19	174	42.55	58	47.34	214	36.217	74	64.36	112
26	47.581	28	13.03	64	49.649	115	47.45	209	41.97	43	45.20	258	36.143	49	63.24	123
36	47.553		13.67		49.534		45.36		41.54		42.62		36.094		62.01	
Mittl. Ort	46.174		19.18		49.293		29.14		39.91		38.13		34.915		52.13	
sec δ, tg δ	1.005		−0.102		1.309		+0.844		4.667		−4.559		1.014		+0.170	
a, *a'*	+3.2		+15.8		+2.4		+16.2		+6.7		+16.2		+2.9		+16.5	
b, *b'*	−0.01		+ 0.61		+0.05		+ 0.59		−0.25		+ 0.59		+0.01		+ 0.57	

Tag	819) δ Capricorni AR.		819) δ Capricorni Dekl.		821) π² Cygni AR.		821) π² Cygni Dekl.		823) 16 Pegasi AR.		823) 16 Pegasi Dekl.		822) γ Gruis AR.		822) γ Gruis Dekl.	
1947	$21^h 44^m$		$-16° 21'$		$21^h 44^m$		$+49° 3'$		$21^h 50^m$		$+25° 40'$		$21^h 50^m$		$-37° 36'$	
	s		"		s		"		s		"		s		"	
Jan. 1	5.104	23	79.67	10	47.638	146	52.93	236	36.958	67	28.69	183	41.384	43	71.21	97
11	5.081	6	79.77	3	47.492	103	50.57	265	36.891	37	26.86	198	41.341	7	70.24	122
21	5.087	36	79.74	17	47.389	55	47.92	284	36.854	5	24.88	205	41.334	30	69.02	144
31	5.123	68	79.57	32	47.334	2	45.08	292	36.849	29	22.83	205	41.364	68	67.58	163
Febr. 10	5.191	98	79.25	50	47.332	52	42.16	289	36.878	65	20.78	194	41.432	107	65.95	180
20	5.289	129	78.75	66	47.384	109	39.27	273	36.943	103	18.84	176	41.539	145	64.15	193
März 2	5.418	161	78.09	85	47.493	165	36.54	247	37.046	140	17.08	149	41.684	183	62.22	204
12	5.579	193	77.24	104	47.658	218	34.07	210	37.186	178	15.59	115	41.867	221	60.18	210
22	5.772	222	76.20	121	47.876	269	31.97	165	37.364	213	14.44	75	42.088	256	58.08	213
April 1	5.994	251	74.99	137	48.145	313	30.32	114	37.577	246	13.69	32	42.344	290	55.95	213
11	6.245	278	73.62	150	48.458	350	29.18	58	37.823	276	13.37	14	42.634	321	53.82	208
21	6.523	299	72.12	161	48.808	378	28.60	0	38.099	299	13.51	59	42.955	347	51.74	197
Mai 1	6.822	316	70.51	168	49.186	397	28.60	58	38.398	317	14.10	104	43.302	367	49.77	184
11	7.138	327	68.83	170	49.583	405	29.18	113	38.715	327	15.14	145	43.669	381	47.93	165
21	7.465	330	67.13	166	49.988	402	30.31	165	39.042	329	16.59	182	44.050	387	46.28	143
31	7.795	327	65.47	159	50.390	388	31.96	212	39.371	323	18.41	213	44.437	384	44.85	115
Juni 10	8.122	315	63.88	148	50.778	363	34.08	252	39.694	308	20.54	238	44.821	372	43.70	86
20	8.437	295	62.40	132	51.141	329	36.60	285	40.002	285	22.92	257	45.193	350	42.84	55
30	8.732	269	61.08	112	51.470	287	39.45	311	40.287	256	25.49	269	45.543	321	42.29	21
Juli 10	9.001	235	59.96	91	51.757	237	42.56	330	40.543	220	28.18	274	45.864	283	42.08	12
20	9.236	195	59.05	68	51.994	183	45.85	340	40.763	179	30.92	273	46.147	237	42.20	45
30	9.431	153	58.37	44	52.177	124	49.25	342	40.942	134	33.65	266	46.384	187	42.65	73
Aug. 9	9.584	107	57.93	21	52.301	64	52.67	338	41.076	88	36.31	253	46.571	133	43.38	100
18*)	[18] 9.691	60	57.72	2	[18] 52.365	5	56.05	326	[20] 41.164	42	38.84	236	46.704	78	44.38	121
28	9.751	16	57.74	21	52.370	52	59.31	307	41.206	3	41.20	215	[20] 46.782	23	45.59	137
Sept. 7	9.767	26	57.95	38	52.318	105	62.38	282	41.203	44	43.35	190	46.805	29	46.96	146
17	9.741	64	58.33	51	52.213	152	65.20	252	41.159	81	45.25	161	46.776	75	48.42	149
27	9.677	93	58.84	60	52.061	192	67.72	217	41.078	111	46.86	131	46.701	115	49.91	145
Okt. 7	9.584	116	59.44	66	51.869	224	69.89	177	40.967	135	48.17	98	46.586	145	51.36	133
17	9.468	131	60.10	68	51.645	247	71.66	132	40.832	150	49.15	64	46.441	165	52.69	117
27	9.337	136	60.78	66	51.398	261	72.98	84	40.682	159	49.79	28	46.276	176	53.86	94
Nov. 6	9.201	135	61.44	62	51.137	266	73.82	33	40.523	161	50.07	8	46.100	176	54.80	68
16	9.066	125	62.06	55	50.871	263	74.15	19	40.362	155	49.99	44	45.924	167	55.48	39
26	8.941	110	62.61	47	50.608	250	73.96	70	40.207	144	49.55	79	45.757	149	55.87	8
Dez. 6	8.831	89	63.08	38	50.358	230	73.26	121	40.063	127	48.76	112	45.608	126	55.95	23
16	8.742	66	63.46	27	50.128	203	72.05	169	39.936	106	47.64	142	45.482	96	55.72	53
26	8.676	38	63.73	16	49.925	168	70.36	211	39.830	82	46.22	167	45.386	63	55.19	82
36	8.638		63.89		49.757		68.25		39.748		44.55		45.323		54.37	
Mittl. Ort	7.057		67.45		49.922		49.30		38.884		30.09		43.537		54.10	
sec δ, tg δ	1.042		−0.294		1.526		+1.153		1.110		+0.481		1.262		−0.771	
a, *a′*	+3.3		+16.6		+2.2		+16.7		+2.7		+16.9		+3.6		+16.9	
b, *b′*	−0.02		+ 0.56		+0.06		+ 0.56		+0.03		+ 0.53		−0.04		+ 0.53	

*) Bei Stern 823) und 822) lies Aug. 19.

Scheinbare Sternörter 1947

Tag	827) α Aquarii				830) 20 Cephei				828) ι Aquarii				829) α Gruis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$22^h\ 3^m$		−0° 34′		$22^h\ 3^m$		+62° 31′		$22^h\ 3^m$		−14° 7′		$22^h\ 4^m$		−47° 12′	
	s		″		s		″		s		″		s		″	
Jan. 1	1.898	43	49.40	82	20.98	29	42.77	223	32.744	39	51.45	21	51.871	80	86.19	137
11	1.855	16	50.22	78	20.69	23	40.54	261	32.705	12	51.66	8	51.791	39	84.82	167
21	1.839	10	51.00	71	20.46	16	37.93	291	32.693	16	51.74	7	51.752	5	83.15	195
31	1.849	39	51.71	60	20.30	9	35.02	310	32.709	45	51.67	22	51.757	50	81.20	217
Febr. 10	1.888	68	52.31	44	20.21	1	31.92	315	32.754	75	51.45	40	51.807	95	79.03	234
20	1.956	100	52.75	25	20.20	8	28.77	308	32.829	107	51.05	59	51.902	141	76.69	247
März 2	2.056	131	53.00	2	20.28	16	25.69	289	32.936	138	50.46	78	52.043	185	74.22	256
12	2.187	164	53.02	23	20.44	25	22.80	258	33.074	171	49.68	99	52.228	230	71.66	258
22	2.351	196	52.79	51	20.69	32	20.22	216	33.245	203	48.69	118	52.458	273	69.08	257
April 1	2.547	226	52.28	79	21.01	39	18.06	168	33.448	234	47.51	136	52.731	313	66.51	250
11	2.773	254	51.49	106	21.40	45	16.38	112	33.682	262	46.15	153	53.044	350	64.01	238
21	3.027	278	50.43	131	21.85	48	15.26	53	33.944	287	44.62	165	53.394	383	61.63	220
Mai 1	3.305	297	49.12	153	22.33	52	14.73	7	34.231	306	42.97	175	53.777	408	59.43	199
11	3.602	310	47.59	171	22.85	53	14.80	68	34.537	321	41.22	179	54.185	427	57.44	172
21	3.912	316	45.88	184	23.38	53	15.48	125	34.858	327	39.43	179	54.612	436	55.72	142
31	4.228	315	44.04	193	23.91	52	16.73	179	35.185	326	37.64	174	55.048	435	54.30	106
Juni 10	4.543	306	42.11	195	24.43	48	18.52	227	35.511	318	35.90	164	55.483	425	53.24	70
20	4.849	288	40.16	193	24.91	44	20.79	270	35.829	302	34.26	150	55.908	404	52.54	31
30	5.137	264	38.23	186	25.35	38	23.49	304	36.131	277	32.76	132	56.312	372	52.23	9
Juli 10	5.401	234	36.37	173	25.73	31	26.53	331	36.408	246	31.44	111	56.684	332	52.32	47
20	5.635	197	34.64	158	26.04	25	29.84	351	36.654	209	30.33	88	57.016	283	52.79	84
30	5.832	157	33.06	139	26.29	17	33.35	363	36.863	168	29.45	64	57.299	226	53.63	117
Aug. 9	5.989	114	31.67	119	26.46	9	36.98	366	37.031	123	28.81	39	57.525	166	54.80	146
19	6.103	71	30.48	97	26.55	1	40.64	361	37.154	78	28.42	16	57.691	103	56.26	169
28	^{23}6.174	28	29.51	74	^{23}26.56	7	44.25	351	^{23}37.232	34	28.26	5	^{23}57.794	39	57.95	184
Sept. 7	6.202	12	28.77	52	26.49	15	47.76	331	37.266	8	28.31	25	57.833	22	59.79	192
17	6.190	47	28.25	32	26.34	21	51.07	305	37.258	46	28.56	41	57.811	78	61.71	193
27	6.143	77	27.93	11	26.13	27	54.12	273	37.212	78	28.97	53	57.733	126	63.64	184
Okt. 7	6.066	100	27.82	6	25.86	32	56.85	235	37.134	102	29.50	61	57.607	166	65.48	167
17	5.966	116	27.88	21	25.54	36	59.20	190	37.032	119	30.11	66	57.441	194	67.15	144
27	5.850	125	28.09	36	25.18	38	61.10	142	36.913	128	30.77	67	57.247	210	68.59	113
Nov. 6	5.725	126	28.45	48	24.80	41	62.52	88	36.785	130	31.44	65	57.037	216	69.72	79
16	5.599	121	28.93	58	24.39	41	63.40	31	36.655	125	32.09	61	56.821	210	70.51	41
26	5.478	110	29.51	67	23.98	41	63.71	27	36.530	112	32.70	54	56.611	195	70.92	0
Dez. 6	5.368	95	30.18	74	23.57	39	63.44	84	36.418	96	33.24	47	56.416	170	70.92	41
16	5.273	77	30.92	77	23.18	36	62.60	140	36.322	76	33.71	37	56.246	139	70.51	81
26	5.196	54	31.69	80	22.82	32	61.20	191	36.246	52	34.08	26	56.107	103	69.70	117
36	5.142		32.49		22.50		59.29		36.194		34.34		56.004		68.53	
Mittl. Ort	3.703		41.07		23.69		36.01		34.584		39.42		54.112		66.72	
sec δ, tg δ	1.000		−0.010		2.168		+1.923		1.031		−0.252		1.472		−1.081	
a, *a′*	+3.1		+17.5		+1.8		+17.5		+3.2		+17.5		+3.8		+17.6	
b, *b′*	0.00		+ 0.49		+0.11		+ 0.49		−0.01		+ 0.49		−0.06		+ 0.48	

Tag	834) ϑ Pegasi AR.	Δ	834) ϑ Pegasi Dekl.	Δ	835) π Pegasi AR.	Δ	835) π Pegasi Dekl.	Δ	837) 24 Cephei AR.	Δ	837) 24 Cephei Dekl.	Δ	836) ζ Cephei AR.	Δ	836) ζ Cephei Dekl.	Δ
1947	22h 7m		+5° 55′		22h 7m		+32° 54′		22h 8m		+72° 4′		22h 8m		+57° 56′	
	s		″		s		″		s		″		s		″	
Jan. 1	29.732	49	64.75	106	35.887	98	63.85	189	44.01	51	56.27	210	58.236	240	28.53	217
11	29.683	25	63.69	108	35.789	68	61.96	211	43.50	42	54.17	255	57.996	192	26.36	254
21	29.658	2	62.61	105	35.721	35	59.85	225	43.08	31	51.62	289	57.804	134	23.82	283
31	29.660	31	61.56	97	35.686	2	57.60	229	42.77	20	48.73	313	57.670	71	20.99	300
Febr. 10	29.691	61	60.59	82	35.688	40	55.31	224	42.57	7	45.60	324	57.599	2	17.99	305
20	29.752	92	59.77	64	35.728	82	53.07	210	42.50	6	42.36	322	57.597	70	14.94	298
März 2	29.844	125	59.13	40	35.810	123	50.97	185	42.56	20	39.14	306	57.667	143	11.96	279
12	29.969	159	58.73	12	35.933	166	49.12	153	42.76	32	36.08	280	57.810	213	9.17	248
22	30.128	191	58.61	18	36.099	207	47.59	113	43.08	43	33.28	242	58.023	280	6.69	208
April 1	30.319	223	58.79	50	36.306	245	46.46	69	43.51	53	30.86	194	58.303	341	4.61	160
11	30.542	251	59.29	82	36.551	278	45.77	21	44.04	63	28.92	141	58.644	391	3.01	105
21	30.793	276	60.11	112	36.829	306	45.56	28	44.67	68	27.51	82	59.035	432	1.96	47
Mai 1	31.069	297	61.23	141	37.135	328	45.84	77	45.35	73	26.69	21	59.467	461	1.49	12
11	31.366	309	62.64	164	37.463	341	46.61	124	46.08	74	26.48	41	59.928	476	1.61	71
21	31.675	316	64.28	185	37.804	346	47.85	166	46.82	75	26.89	101	60.404	477	2.32	128
31	31.991	315	66.13	199	38.150	341	49.51	204	47.57	71	27.90	156	60.881	465	3.60	179
Juni 10	32.306	306	68.12	208	38.491	328	51.55	235	48.28	67	29.46	208	61.346	440	5.39	227
20	32.612	288	70.20	212	38.819	306	53.90	261	48.95	61	31.54	255	61.786	404	7.66	267
30	32.900	265	72.32	209	39.125	276	56.51	280	49.56	52	34.09	293	62.190	357	10.33	301
Juli 10	33.165	234	74.41	202	39.401	240	59.31	292	50.08	43	37.02	325	62.547	301	13.34	328
20	33.399	198	76.43	191	39.641	198	62.23	296	50.51	33	40.27	349	62.848	239	16.62	345
30	33.597	158	78.34	175	39.839	152	65.19	294	50.84	22	43.76	365	63.087	171	20.07	356
Aug. 9	33.755	116	80.09	156	39.991	105	68.13	287	51.06	10	47.41	374	63.258	101	23.63	359
19	33.871	72	81.65	135	40.096	56	71.00	272	51.16	1	51.15	374	63.359	31	27.22	355
28	[24]33.943	30	83.00	114	[24]40.152	8	73.72	254	[24]51.15	12	54.89	366	[24]63.390	38	30.77	342
Sept. 7	33.973	10	84.14	90	40.160	35	76.26	231	51.03	24	58.55	351	63.352	103	34.19	323
17	33.963	46	85.04	67	40.125	75	78.57	202	50.79	33	62.06	329	63.249	162	37.42	297
27	33.917	75	85.71	44	40.050	108	80.59	172	50.46	42	65.35	300	63.087	215	40.39	265
Okt. 7	33.842	99	86.15	23	39.942	136	82.31	137	50.04	50	68.35	263	62.872	259	43.04	227
17	33.743	115	86.38	1	39.806	157	83.68	101	49.54	57	70.98	220	62.613	295	45.31	185
27	33.628	124	86.39	18	39.649	169	84.69	61	48.97	62	73.18	171	62.318	321	47.16	136
Nov. 6	33.504	127	86.21	36	39.480	174	85.30	21	48.35	65	74.89	117	61.997	337	48.52	83
16	33.377	123	85.85	54	39.306	174	85.51	20	47.70	67	76.06	60	61.660	342	49.35	30
26	33.254	114	85.31	68	39.132	166	85.31	61	47.03	67	76.66	0	61.318	337	49.65	27
Dez. 6	33.140	100	84.63	82	38.966	152	84.70	100	46.36	65	76.66	61	60.981	323	49.38	83
16	33.040	82	83.81	94	38.814	135	83.70	137	45.71	61	76.05	120	60.658	298	48.55	136
26	32.958	61	82.87	101	38.679	111	82.33	170	45.10	55	74.85	176	60.360	264	47.19	187
36	32.897		81.86		38.568		80.63		44.55		73.09		60.096		45.32	
Mittl. Ort	31.516		71.26		37.805		63.02		47.54		48.00		60.687		22.27	
sec δ, tg δ	1.005		+0.104		1.191		+0.647		3.250		+3.092		1.884		+1.597	
a, a′	+3.0		+17.7		+2.7		+17.7		+1.1		+17.7		+2.1		+17.7	
b, b′	+0.01		+0.47		+0.04		+0.47		+0.18		+0.47		+0.09		+0.47	

Tag	840) ϑ Aquarii AR.	Diff.	840) ϑ Aquarii Dekl.	Diff.	841) α Tucanae AR.	Diff.	841) α Tucanae Dekl.	Diff.	842) γ Aquarii AR.	Diff.	842) γ Aquarii Dekl.	Diff.	844) β Lacertae AR.	Diff.	844) β Lacertae Dekl.	Diff.
1947	$22^h\ 14^m$		$-8°\ 2'$		$22^h\ 14^m$		$-60°\ 31'$		$22^h\ 18^m$		$-1°\ 39'$		$22^h\ 21^m$		$+51°\ 57'$	
	s		"		s		"		s		"		s		"	
Jan. 1	0.505	47	63.05	48	50.75	16	50.47	189	53.397	52	26.91	74	26.059	199	52.42	202
11	0.458	23	63.53	39	50.59	10	48.58	226	53.345	29	27.65	69	25.860	160	50.40	238
21	0.435	5	63.92	27	50.49	4	46.32	256	53.316	3	28.34	62	25.700	115	48.02	265
31	0.440	32	64.19	13	50.45	2	43.76	281	53.313	24	28.96	50	25.585	63	45.37	283
Febr. 10	0.472	61	64.32	4	50.47	8	40.95	299	53.337	53	29.46	35	25.522	7	42.54	288
20	0.533	92	64.28	23	50.55	15	37.96	309	53.390	84	29.81	15	25.515	53	39.66	281
März 2	0.625	125	64.05	45	50.70	22	34.87	314	53.474	116	29.96	7	25.568	115	36.85	264
12	0.750	157	63.60	67	50.92	28	31.73	311	53.590	150	29.89	32	25.683	177	34.21	234
22	0.907	189	62.93	91	51.20	34	28.62	302	53.740	182	29.57	58	25.860	235	31.87	196
April 1	1.096	221	62.02	113	51.54	39	25.60	288	53.922	215	28.99	85	26.095	290	29.91	150
11	1.317	250	60.89	135	51.93	44	22.72	266	54.137	244	28.14	111	26.385	337	28.41	98
21	1.567	276	59.54	153	52.37	49	20.06	240	54.381	271	27.03	136	26.722	376	27.43	43
Mai 1	1.843	298	58.01	168	52.86	52	17.66	208	54.652	292	25.67	157	27.098	406	27.00	14
11	2.141	312	56.33	180	53.38	55	15.58	171	54.944	308	24.10	174	27.504	423	27.14	71
21	2.453	321	54.53	186	53.93	57	13.87	131	55.252	317	22.36	186	27.927	429	27.85	125
31	2.774	321	52.67	186	54.50	56	12.56	88	55.569	318	20.50	194	28.356	424	29.10	175
Juni 10	3.095	314	50.81	183	55.06	55	11.68	42	55.887	311	18.56	197	28.780	406	30.85	220
20	3.409	299	48.98	173	55.61	52	11.26	5	56.198	296	16.59	193	29.186	378	33.05	260
30	3.708	277	47.25	161	56.13	50	11.31	50	56.494	274	14.66	185	29.564	340	35.65	292
Juli 10	3.985	247	45.64	143	56.63	44	11.81	95	56.768	246	12.81	173	29.904	293	38.57	316
20	4.232	212	44.21	124	57.07	37	12.76	136	57.014	211	11.08	156	30.197	241	41.73	334
30	4.444	172	42.97	101	57.44	31	14.12	173	57.225	172	9.52	137	30.438	183	45.07	344
Aug. 9	4.616	129	41.96	78	57.75	22	15.85	202	57.397	130	8.15	116	30.621	123	48.51	346
19	4.745	85	41.18	54	57.97	14	17.87	225	57.527	86	6.99	93	30.744	61	51.97	341
28	[26] 4.830	42	40.64	32	[26] 58.11	5	20.12	239	[27] 57.613	45	6.06	71	[28] 30.805	1	55.38	329
Sept. 7	4.872	1	40.32	10	58.16	3	22.51	244	57.658	4	5.35	48	30.806	57	58.67	311
17	4.873	36	40.22	8	58.13	11	24.95	240	57.662	33	4.87	27	30.749	110	61.78	287
27	4.837	67	40.30	25	58.02	18	27.35	225	57.629	63	4.60	8	30.639	156	64.65	255
Okt. 7	4.770	93	40.55	38	57.84	24	29.60	200	57.566	89	4.52	10	30.483	196	67.20	219
17	4.677	110	40.93	48	57.60	29	31.60	168	57.477	106	4.62	25	30.287	228	69.39	178
27	4.567	120	41.41	55	57.31	31	33.28	128	57.371	117	4.87	39	30.059	252	71.17	133
Nov. 6	4.447	124	41.96	59	57.00	33	34.56	82	57.254	122	5.26	49	29.807	267	72.50	83
16	4.323	120	42.55	62	56.67	33	35.38	32	57.132	119	5.75	58	29.540	273	73.33	32
26	4.203	111	43.17	61	56.34	31	35.70	18	57.013	111	6.33	64	29.267	272	73.65	21
Dez. 6	4.092	97	43.78	60	56.03	28	35.52	70	56.902	98	6.97	70	28.995	261	73.44	75
16	3.995	80	44.38	56	55.75	24	34.82	119	56.804	83	7.67	72	28.734	243	72.69	125
26	3.915	58	44.94	50	55.51	20	33.63	165	56.721	62	8.39	73	28.491	217	71.44	173
36	3.857		45.44		55.31		31.98		56.659		9.12		28.274		69.71	
Mittl. Ort	2.269		52.55		53.36		28.60		55.127		18.22		28.240		46.76	
sec δ, tg δ	1.010		−0.141		2.032		−1.769		1.000		−0.029		1.623		+1.278	
a, *a'*	+3.2		+17.9		+4.1		+18.0		+3.1		+18.1		+2.4		+18.2	
b, *b'*	−0.01		+ 0.45		−0.11		+ 0.44		0.00		+ 0.43		+0.08		+ 0.42	

Tag	848) α Lacertae				850) η Aquarii				851) 31 Cephei				852) 10 Lacertae			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$22^h\ 29^m$		+50° 0′		$22^h\ 32^m$		−0° 23′		$22^h\ 34^m$		+73° 21′		$22^h\ 36^m$		+38° 46′	
	s		″		s		″		s		″		s		″	
Jan. 1	4.056	190	39.95	192	36.301	61	36.75	76	24.07	59	73.94	177	50.853	137	29.25	174
11	3.866	156	38.03	228	36.240	40	37.51	73	23.48	52	72.17	225	50.716	111	27.51	203
21	3.710	114	35.75	255	36.200	16	38.24	66	22.96	41	69.92	266	50.605	78	25.48	225
31	3.596	66	33.20	273	36.184	10	38.90	54	22.55	29	67.26	297	50.527	42	23.23	237
Febr. 10	3.530	12	30.47	279	36.194	39	39.44	40	22.26	17	64.29	315	50.485	1	20.86	239
20	3.518	44	27.68	274	36.233	69	39.84	21	22.09	2	61.14	320	50.484	43	18.47	231
März 2	3.562	103	24.94	257	36.302	102	40.05	1	22.07	12	57.94	312	50.527	90	16.16	213
12	3.665	162	22.37	230	36.404	136	40.04	26	22.19	26	54.82	292	50.617	138	14.03	185
22	3.827	219	20.07	192	36.540	169	39.78	52	22.45	39	51.90	261	50.755	185	12.18	150
April 1	4.046	273	18.15	148	36.709	203	39.26	80	22.84	51	49.29	219	50.940	231	10.68	108
11	4.319	320	16.67	97	36.912	235	38.46	107	23.35	62	47.10	168	51.171	271	9.60	61
21	4.639	360	15.70	43	37.147	263	37.39	133	23.97	69	45.42	114	51.442	307	8.99	11
Mai 1	4.999	390	15.27	13	37.410	287	36.06	155	24.66	76	44.28	55	51.749	335	8.88	40
11	5.389	409	15.40	69	37.697	304	34.51	173	25.42	79	43.73	6	52.084	354	9.28	89
21	5.798	418	16.09	122	38.001	316	32.78	188	26.21	80	43.79	66	52.438	365	10.17	137
31	6.216	415	17.31	171	38.317	318	30.90	196	27.01	79	44.45	124	52.803	365	11.54	179
Juni 10	6.631	400	19.02	216	38.635	314	28.94	200	27.80	75	45.69	179	53.168	357	13.33	218
20	7.031	374	21.18	255	38.949	301	26.94	199	28.55	70	47.48	227	53.525	338	15.51	249
30	7.405	340	23.73	286	39.250	281	24.95	192	29.25	62	49.75	270	53.863	310	18.00	275
Juli 10	7.745	297	26.59	312	39.531	254	23.03	181	29.87	53	52.45	306	54.173	276	20.75	293
20	8.042	248	29.71	329	39.785	221	21.22	165	30.40	43	55.51	336	54.449	235	23.68	305
30	8.290	192	33.00	338	40.006	183	19.57	146	30.83	32	58.87	358	54.684	189	26.73	310
Aug. 9	8.482	134	36.38	342	40.189	142	18.11	126	31.15	19	62.45	371	54.873	140	29.83	309
19	8.616	76	39.80	337	40.331	99	16.85	103	31.34	8	66.16	377	55.013	90	32.92	300
29	8.692	17	43.17	326	40.430	57	15.82	80	31.42	4	69.93	376	55.103	41	35.92	286
	29				30				31				31			
Sept. 7	8.709	38	46.43	308	40.487	17	15.02	57	31.38	16	73.69	366	55.144	6	38.78	267
17	8.671	89	49.51	284	40.504	20	14.45	35	31.22	27	77.35	348	55.138	50	41.45	242
27	8.582	136	52.35	254	40.484	52	14.10	15	30.95	37	80.83	324	55.088	89	43.87	214
Okt. 7	8.446	174	54.89	220	40.432	78	13.95	4	30.58	47	84.07	292	54.999	122	46.01	181
17	8.272	206	57.09	179	40.354	98	13.99	20	30.11	54	86.99	253	54.877	148	47.82	144
27	8.066	229	58.88	135	40.256	110	14.19	34	29.57	61	89.52	208	54.729	167	49.26	104
Nov. 6	7.837	246	60.23	88	40.146	117	14.53	46	28.96	67	91.60	157	54.562	180	50.30	63
16	7.591	253	61.11	37	40.029	117	14.99	56	28.29	70	93.17	100	54.382	186	50.93	19
26	7.338	254	61.48	15	39.912	111	15.55	64	27.59	71	94.17	41	54.196	185	51.12	26
Dez. 6	7.084	245	61.33	67	39.801	102	16.19	70	26.88	71	94.58	20	54.011	179	50.86	70
16	6.839	229	60.66	117	39.699	88	16.89	74	26.17	68	94.38	81	53.832	167	50.16	112
26	6.610	206	59.49	163	39.611	71	17.63	75	25.49	63	93.57	140	53.665	148	49.04	150
36	6.404		57.86		39.540		18.38		24.86		92.17		53.517		47.54	
Mittl. Ort	6.145		34.42		37.962		28.42		27.52		64.32		52.704		26.10	
sec δ, tg δ	1.556		+1.192		1.000		−0.007		3.494		+3.348		1.283		+0.803	
a, *a′*	+2.5		+18.5		+3.1		+18.6		+1.4		+18.7		+2.7		+18.7	
b, *b′*	+0.07		+ 0.39		0.00		+ 0.37		+0.21		+ 0.36		+0.05		+ 0.35	

Scheinbare Sternörter 1947

Tag	855) ζ Pegasi				856) β Gruis				857) η Pegasi				859) λ Pegasi			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$22^h\ 38^m$		$+10^\circ\ 33'$		$22^h\ 39^m$		$-47^\circ\ 9'$		$22^h\ 40^m$		$+29^\circ\ 56'$		$22^h\ 43^m$		$+23^\circ\ 16'$	
	s		"		s		"		s		"		s		"	
Jan. 1	47.378	74	10.10	111	28.767	119	65.21	116	29.091	110	37.76	157	56.822	96	69.57	142
11	47.304	53	8.99	117	28.648	84	64.05	152	28.981	87	36.19	180	56.726	75	68.15	159
21	47.251	29	7.82	117	28.564	45	62.53	185	28.894	60	34.39	196	56.651	50	66.56	169
31	47.222	3	6.65	113	28.519	3	60.68	213	28.834	28	32.43	202	56.601	21	64.87	173
Febr. 10	47.219	26	5.52	103	28.516	40	58.55	236	28.806	7	30.41	201	56.580	10	63.14	169
20	47.245	58	4.49	86	28.556	84	56.19	255	28.813	45	28.40	191	56.590	46	61.45	156
März 2	47.303	93	3.63	64	28.640	131	53.64	268	28.858	87	26.49	171	56.636	84	59.89	136
12	47.396	127	2.99	38	28.771	177	50.96	277	28.945	129	24.78	144	56.720	124	58.53	110
22	47.523	164	2.61	7	28.948	224	48.19	279	29.074	171	23.34	110	56.844	163	57.43	76
April 1	47.687	199	2.54	26	29.172	269	45.40	277	29.245	212	22.24	69	57.007	201	56.67	39
11	47.886	232	2.80	60	29.441	311	42.63	268	29.457	250	21.55	26	57.208	238	56.28	2
21	48.118	261	3.40	93	29.752	350	39.95	254	29.707	282	21.29	19	57.446	270	56.30	43
Mai 1	48.379	286	4.33	124	30.102	383	37.41	235	29.989	310	21.48	64	57.716	296	56.73	84
11	48.665	305	5.57	154	30.485	409	35.06	210	30.299	329	22.12	109	58.012	316	57.57	123
21	48.970	316	7.11	178	30.894	425	32.96	181	30.628	340	23.21	150	58.328	328	58.80	160
31	49.286	319	8.89	198	31.319	434	31.15	146	30.968	343	24.71	186	58.656	332	60.40	190
Juni 10	49.605	315	10.87	213	31.753	431	29.69	107	31.311	336	26.57	218	58.988	326	62.30	216
20	49.920	302	13.00	221	32.184	418	28.62	68	31.647	320	28.75	243	59.314	313	64.46	237
30	50.222	283	15.21	223	32.602	394	27.94	26	31.967	297	31.18	263	59.627	291	66.83	250
Juli 10	50.505	255	17.44	221	32.996	360	27.68	17	32.264	266	33.81	275	59.918	263	69.33	259
20	50.760	222	19.65	214	33.356	317	27.85	57	32.530	229	36.56	281	60.181	228	71.92	260
30	50.982	184	21.79	202	33.673	266	28.42	96	32.759	188	39.37	282	60.409	189	74.52	257
Aug. 9	51.166	143	23.81	185	33.939	209	29.38	130	32.947	143	42.19	275	60.598	147	77.09	247
19	51.309	101	25.66	166	34.148	148	30.68	160	33.090	97	44.94	264	60.745	102	79.56	233
29	51.410	59	27.32	146	34.296	86	32.28	182	33.187	51	47.58	247	60.847	59	81.89	215
Sept. 7	[1] 51.469	19	28.78	122	[1] 34.382	24	34.10	197	[1] 33.238	8	50.05	227	[2] 60.906	17	84.04	193
17	51.488	19	30.00	98	34.406	34	36.07	203	33.246	33	52.32	202	60.923	22	85.97	169
27	51.469	50	30.98	74	34.372	87	38.10	202	33.213	68	54.34	174	60.901	56	87.66	143
Okt. 7	51.419	77	31.72	50	34.285	131	40.12	190	33.145	98	56.08	144	60.845	84	89.09	114
17	51.342	98	32.22	27	34.154	167	42.02	172	33.047	121	57.52	111	60.761	107	90.23	84
27	51.244	111	32.49	3	33.987	191	43.74	145	32.926	139	58.63	75	60.654	123	91.07	52
Nov. 6	51.133	120	32.52	18	33.796	206	45.19	111	32.787	149	59.38	39	60.531	133	91.59	21
16	51.013	121	32.34	39	33.590	209	46.30	74	32.638	154	59.77	1	60.398	137	91.80	11
26	50.892	117	31.95	58	33.381	202	47.04	33	32.484	153	59.78	36	60.261	136	91.69	43
Dez. 6	50.775	110	31.37	75	33.179	188	47.37	10	32.331	147	59.42	73	60.125	130	91.26	73
16	50.665	98	30.62	91	32.991	166	47.27	52	32.184	135	58.69	107	59.995	119	90.53	101
26	50.567	82	29.71	103	32.825	137	46.75	94	32.049	120	57.62	138	59.876	105	89.52	127
36	50.485		28.68		32.688		45.81		31.929		56.24		59.771		88.25	
Mittl. Ort	49.024		15.04		30.683		44.47		30.830		36.89		58.497		70.56	
sec δ, tg δ	1.017		+0.186		1.471		−1.078		1.154		+0.576		1.089		+0.430	
a, *a'*	+3.0		+18.8		+3.6		+18.8		+2.8		+18.8		+2.9		+19.0	
b, *b'*	+0.01		+ 0.35		−0.07		+ 0.34		+0.04		+ 0.34		+0.03		+ 0.33	

Tag		860) ε Gruis AR.		860) ε Gruis Dekl.		863) ι Cephei AR.		863) ι Cephei Dek		1599) 69 G. Gruis AR.		1599) 69 G. Gruis Dekl.		864) λ Aquarii AR.		864) λ Aquarii Dekl.	
1947		$22^h\ 45^m$		$-51°\ 35'$		$22^h\ 47^m$		$+65°\ 54'$		$22^h\ 47^m$		$-39°\ 26'$		$22^h\ 49^m$		$-7°\ 51'$	
		s		"		s		"		s		"		s		"	
Jan.	1	19.866	146	67.50	129	44.59	40	86.23	167	59.788	103	36.28	79	49.420	70	54.29	48
	11	19.720	107	66.21	169	44.19	34	84.56	216	59.685	74	35.49	111	49.350	50	54.77	36
	21	19.613	65	64.52	204	43.85	28	82.40	255	59.611	42	34.38	143	49.300	28	55.13	24
	31	19.548	19	62.48	234	43.57	20	79.85	285	59.569	8	32.95	171	49.272	3	55.37	9
Febr.	10	19.529	28	60.14	257	43.37	12	77.00	303	59.561	29	31.24	195	49.269	24	55.46	8
	20	19.557	78	57.57	277	43.25	2	73.97	309	59.590	67	29.29	216	49.293	55	55.38	28
März	2	19.635	128	54.80	289	43.23	7	70.88	302	59.657	108	27.13	233	49.348	86	55.10	50
	12	19.763	179	51.91	297	43.30	17	67.86	282	59.765	150	24.80	245	49.434	121	54.60	73
	22	19.942	231	48.94	298	43.47	27	65.04	252	59.915	192	22.35	254	49.555	156	53.87	96
April	1	20.173	280	45.96	293	43.74	35	62.52	211	60.107	233	19.81	257	49.711	191	52.91	119
	11	20.453	326	43.03	282	44.09	43	60.41	163	60.340	272	17.24	255	49.902	224	51.72	141
	21	20.779	369	40.21	265	44.52	50	58.78	109	60.612	309	14.69	248	50.126	255	50.31	161
Mai	1	21.148	405	37.56	243	45.02	55	57.69	52	60.921	340	12.21	236	50.381	281	48.70	176
	11	21.553	435	35.13	214	45.57	58	57.17	8	61.261	365	9.85	219	50.662	302	46.94	189
	21	21.988	454	32.99	182	46.15	59	57.25	66	61.626	383	7.66	195	50.964	316	45.05	195
	31	22.442	465	31.17	144	46.74	60	57.91	123	62.009	392	5.71	168	51.280	323	43.10	197
Juni	10	22.907	463	29.73	104	47.34	57	59.14	176	62.401	391	4.03	135	51.603	321	41.13	195
	20	23.370	450	28.69	60	47.91	54	60.90	224	62.792	381	2.68	100	51.924	312	39.18	186
	30	23.820	426	28.09	15	48.45	49	63.14	266	63.173	360	1.68	63	52.236	294	37.32	173
Juli	10	24.246	391	27.94	29	48.94	44	65.80	302	63.533	331	1.05	23	52.530	269	35.59	156
	20	24.637	346	28.23	73	49.38	36	68.82	330	63.864	294	0.82	15	52.799	238	34.03	135
	30	24.983	291	28.96	113	49.74	28	72.12	352	64.158	249	0.97	53	53.037	202	32.68	112
Aug.	9	25.274	231	30.09	148	50.02	20	75.64	364	64.407	200	1.50	88	53.239	162	31.56	88
	19	25.505	165	31.57	178	50.22	11	79.28	369	64.607	146	2.38	118	53.401	120	30.68	63
	29	25.670	98	33.35	202	50.33	3	82.97	368	64.753	91	3.56	143	53.521	77	30.05	37
Sept.	7	[3] 25.768	30	35.37	216	[3] 50.36	6	86.65	358	[3] 64.844	36	4.99	162	[4] 53.598	35	29.68	15
	17	25.798	35	37.53	222	50.30	13	90.23	341	64.880	15	6.61	173	53.633	2	29.53	7
	27	25.763	92	39.75	219	50.17	21	93.64	317	64.865	61	8.34	176	53.631	37	29.60	25
Okt.	7	25.671	143	41.94	206	49.96	28	96.81	285	64.804	100	10.10	172	53.594	65	29.85	39
	17	25.528	183	44.00	184	49.68	33	99.66	248	64.704	132	11.82	160	53.529	86	30.24	51
	27	25.345	213	45.84	155	49.35	38	102.14	204	64.572	154	13.42	140	53.443	103	30.75	59
Nov.	6	25.132	231	47.39	119	48.97	42	104.18	154	64.418	167	14.82	115	53.340	111	31.34	64
	16	24.901	237	48.58	77	48.55	45	105.72	100	64.251	172	15.97	85	53.229	114	31.98	67
	26	24.664	233	49.35	32	48.10	46	106.72	43	64.079	168	16.82	51	53.115	112	32.65	65
Dez.	6	24.431	218	49.67	15	47.64	45	107.15	16	63.911	156	17.33	14	53.003	104	33.30	63
	16	24.213	195	49.52	60	47.19	45	106.99	76	63.755	140	17.47	22	52.899	93	33.93	57
	26	24.018	165	48.92	105	46.74	42	106.23	132	63.615	117	17.25	58	52.806	78	34.50	50
	36	23.853		47.87		46.32		104.91		63.498		16.67		52.728		35.00	
Mittl. Ort		21.808		45.77		47.18		77.04		61.521		16.93		50.992		43.64	
sec δ, tg δ		1.610		−1.262		2.451		+2.238		1.295		−0.823		1.010		−0.138	
a, *a′*		+3.6		+19.0		−2.1		+19.1		+3.4		+19.1		+3.1		+19.1	
b, *b′*		−0.08		+ 0.32		−0.14		+ 0.31		−0.05		+ 0.31		−0.01		+ 0.30	

Scheinbare Sternörter 1947

Tag	865) ρ Indi AR.		865) ρ Indi Dekl.		866) δ Aquarii AR.		866) δ Aquarii Dekl.		867) α Piscis austr.[1]) AR.		867) α Piscis austr.[1]) Dekl.		869) o Andromedae AR.		869) o Andromedae Dekl.	
1947	22h 50m		−70° 21′		22h 51m		−16° 5′		22h 54m		−29° 53′		22h 59m		+42° 2′	
	s		″		s		″		s		″		s		″	
Jan. 1	57.49	36	51.03	195	48.782	73	84.51	17	41.972	87	90.06	37	26.824	165	31.87	156
11	57.13	29	49.08	240	48.709	53	84.68	0	41.885	63	89.69	65	26.659	141	30.31	189
21	56.84	21	46.68	280	48.656	29	84.68	19	41.822	37	89.04	92	26.518	111	28.42	216
31	56.63	11	43.88	310	48.627	4	84.49	39	41.785	7	88.12	118	26.407	76	26.26	234
Febr. 10	56.52	2	40.78	334	48.623	24	84.10	59	41.778	24	86.94	141	26.331	34	23.92	242
20	56.50	7	37.44	350	48.647	56	83.51	79	41.802	58	85.53	164	26.297	12	21.50	239
März 2	56.57	17	33.94	357	48.703	88	82.72	100	41.860	95	83.89	183	26.309	61	19.11	226
12	56.74	27	30.37	356	48.791	122	81.72	121	41.955	132	82.06	199	26.370	113	16.85	202
22	57.01	36	26.81	348	48.913	159	80.51	142	42.087	170	80.07	213	26.483	164	14.83	172
April 1	57.37	45	23.33	333	49.072	194	79.09	160	42.257	208	77.94	223	26.647	215	13.11	133
11	57.82	53	20.00	312	49.266	228	77.49	176	42.465	246	75.71	229	26.862	261	11.78	88
21	58.35	60	16.88	282	49.494	259	75.73	189	42.711	279	73.42	231	27.123	302	10.90	39
Mai 1	58.95	67	14.06	247	49.753	287	73.84	197	42.990	309	71.11	226	27.425	336	10.51	11
11	59.62	72	11.59	208	50.040	308	71.87	202	43.299	332	68.85	217	27.761	361	10.62	62
21	60.34	74	9.51	163	50.348	323	69.85	200	43.631	350	66.68	204	28.122	376	11.24	111
31	61.08	77	7.88	114	50.671	331	67.85	195	43.981	359	64.64	184	28.498	382	12.35	157
Juni 10	61.85	77	6.74	63	51.002	330	65.90	183	44.340	358	62.80	160	28.880	376	13.92	197
20	62.62	75	6.11	11	51.332	322	64.07	168	44.698	350	61.20	131	29.256	362	15.89	234
30	63.37	71	6.00	41	51.654	304	62.39	147	45.048	333	59.89	101	29.618	337	18.23	264
Juli 10	64.08	65	6.41	91	51.958	279	60.92	123	45.381	306	58.88	67	29.955	305	20.87	286
20	64.73	58	7.32	139	52.237	248	59.69	98	45.687	272	58.21	32	30.260	265	23.73	304
30	65.31	49	8.71	183	52.485	211	58.71	70	45.959	233	57.89	2	30.525	220	26.77	313
Aug. 9	65.80	38	10.54	218	52.696	170	58.01	42	46.192	188	57.91	35	30.745	172	29.90	315
19	66.18	26	12.72	248	52.866	126	57.59	14	46.380	140	58.26	66	30.917	121	33.05	312
29	66.44	15	15.20	268	52.992	82	57.45	11	46.520	91	58.92	92	31.038	71	36.17	302
Sept. 7	4 66.59	2	17.88	278	4 53.074	39	57.56	35	5 46.611	43	59.84	114	6 31.109	21	39.19	286
17	66.61	10	20.66	277	53.113	1	57.91	53	46.654	2	60.98	129	31.130	25	42.05	266
27	66.51	20	23.43	264	53.112	36	58.44	69	46.652	43	62.27	138	31.105	67	44.71	239
Okt. 7	66.31	31	26.07	242	53.076	67	59.13	79	46.609	77	63.65	140	31.038	104	47.10	208
17	66.00	39	28.49	209	53.009	90	59.92	85	46.532	106	65.05	136	30.934	134	49.18	174
27	65.61	46	30.58	167	52.919	106	60.77	87	46.426	125	66.41	125	30.800	159	50.92	135
Nov. 6	65.15	50	32.25	118	52.813	117	61.64	83	46.301	136	67.66	109	30.641	177	52.27	93
16	64.65	52	33.43	63	52.696	120	62.47	76	46.165	141	68.75	88	30.464	189	53.20	49
26	64.13	52	34.06	5	52.576	116	63.23	67	46.024	139	69.63	64	30.275	194	53.69	3
Dez. 6	63.61	50	34.11	54	52.460	110	63.90	55	45.885	130	70.27	36	30.081	193	53.72	42
16	63.11	47	33.57	111	52.350	97	64.45	40	45.755	116	70.63	8	29.888	186	53.30	88
26	62.64	40	32.46	166	52.253	82	64.85	26	45.639	97	70.71	21	29.702	173	52.42	130
36	62.24		30.80		52.171		65.11		45.542		70.50		29.529		51.12	
Mittl. Ort	60.14		26.67		50.354		71.33		43.586		72.92		28.600		27.22	
sec δ, tg δ	2.975		−2.802		1.041		−0.289		1.154		−0.575		1.346		+0.902	
a, *a′*	+4.2		+19.1		+3.2		+19.2		+3.3		+19.2		+2.8		+19.3	
b, *b′*	−0.18		+ 0.30		−0.02		+ 0.29		−0.04		+ 0.28		+0.06		+ 0.26	

[1]) Die jährliche Parallaxe (0.″135) ist bereits berücksichtigt.

Tag	870) β Pegasi AR.	Δ	Dekl.	Δ	871) α Pegasi AR.	Δ	Dekl.	Δ	873) 88 Aquarii AR.	Δ	Dekl.	Δ	875) Br 3077 Cass[1]) AR.	Δ	Dekl.	Δ
1947	$23^h\ 1^m$		$+27°\ 47'$		$23^h\ 2^m$		$+14°\ 54'$		$23^h\ 6^m$		$-21°\ 27'$		$23^h\ 10^m$		$+56°\ 52'$	
	s		"		s		"		s		"		s		"	
Jan. 1	10.429	115	42.65	138	5.554	92	67.76	113	35.894	86	52.31	1	41.164	270	40.16	145
11	10.314	95	41.27	160	5.462	73	66.63	123	35.808	66	52.32	$\overline{23}$	40.894	240	38.71	191
21	10.219	73	39.67	175	5.389	53	65.40	128	35.742	44	52.09	45	40.654	199	36.80	229
31	10.146	44	37.92	183	5.336	29	64.12	127	35.698	19	51.64	68	40.455	149	34.51	258
Febr. 10	10.102	$\overline{12}$	36.09	184	5.307	0	62.85	121	35.679	$\overline{9}$	50.96	92	40.306	91	31.93	275
20	10.090	25	34.25	175	5.307	33	61.64	107	35.688	40	50.04	113	40.215	26	29.18	282
März 2	10.115	64	32.50	158	5.340	67	60.57	87	35.728	74	48.91	135	40.189	$\overline{45}$	26.36	277
12	10.179	106	30.92	134	5.407	104	59.70	63	35.802	110	47.56	156	40.234	118	23.59	260
22	10.285	149	29.58	103	5.511	142	59.07	33	35.912	146	46.00	174	40.352	190	20.99	232
April 1	10.434	191	28.55	66	5.653	181	58.74	0	36.058	184	44.26	190	40.542	260	18.67	195
11	10.625	231	27.89	25	5.834	217	58.74	35	36.242	221	42.36	203	40.802	323	16.72	150
21	10.856	266	27.64	$\overline{17}$	6.051	250	59.09	71	36.463	254	40.33	211	41.125	379	15.22	100
Mai 1	11.122	296	27.81	61	6.301	278	59.80	105	36.717	285	38.22	217	41.504	424	14.22	45
11	11.418	319	28.42	102	6.579	301	60.85	137	37.002	309	36.05	216	41.928	458	13.77	$\overline{11}$
21	11.737	335	29.44	142	6.880	316	62.22	167	37.311	327	33.89	210	42.386	478	13.88	66
31	12.072	340	30.86	178	7.196	323	63.89	190	37.638	338	31.79	200	42.864	485	14.54	119
Juni 10	12.412	338	32.64	207	7.519	322	65.79	210	37.976	340	29.79	183	43.349	479	15.73	170
20	12.750	327	34.71	233	7.841	313	67.89	223	38.316	333	27.96	163	43.828	460	17.43	215
30	13.077	307	37.04	252	8.154	295	70.12	231	38.649	319	26.33	138	44.288	430	19.58	256
Juli 10	13.384	280	39.56	264	8.449	271	72.43	233	38.968	295	24.95	110	44.718	388	22.14	289
20	13.664	247	42.20	271	8.720	240	74.76	230	39.263	266	23.85	80	45.106	339	25.03	316
30	13.911	208	44.91	271	8.960	204	77.06	221	39.529	230	23.05	49	45.445	282	28.19	335
Aug. 9	14.119	166	47.62	266	9.164	165	79.27	209	39.759	188	22.56	17	45.727	220	31.54	348
19	14.285	121	50.28	255	9.329	124	81.36	192	39.947	145	22.39	$\overline{13}$	45.947	156	35.02	353
29	14.406	77	52.83	240	9.453	81	83.28	172	40.092	100	22.52	40	46.103	91	38.55	350
Sept. 7*)	14.483	34	55.23	221	9.534	41	85.00	151	40.192	55	22.92	65	46.194	27	42.05	342
17	14.517	$\overline{6}$	57.44	197	9.575	3	86.51	127	40.247	14	23.57	84	46.221	$\overline{33}$	45.47	325
27	14.511	41	59.41	172	9.578	30	87.78	102	40.261	$\overline{25}$	24.41	98	46.188	91	48.72	303
Okt. 7	14.470	73	61.13	143	9.548	60	88.80	78	40.236	58	25.39	108	46.097	143	51.75	274
17	14.397	99	62.56	113	9.488	82	89.58	52	40.178	83	26.47	110	45.954	188	54.49	239
27	14.298	117	63.69	80	9.406	100	90.10	27	40.095	104	27.57	108	45.766	225	56.88	198
Nov. 6	14.181	132	64.49	46	9.306	112	90.37	2	39.991	116	28.65	100	45.541	256	58.86	152
16	14.049	139	64.95	11	9.194	118	90.39	$\overline{21}$	39.875	122	29.65	88	45.285	279	60.38	103
26	13.910	143	65.06	$\overline{23}$	9.076	119	90.18	45	39.753	122	30.53	73	45.006	293	61.41	50
Dez. 6	13.767	140	64.83	58	8.957	116	89.73	66	39.631	118	31.26	54	44.713	298	61.91	$\overline{5}$
16	13.627	132	64.25	89	8.841	108	89.07	85	39.513	107	31.80	34	44.415	294	61.86	60
26	13.495	122	63.36	120	8.733	97	88.22	102	39.406	93	32.14	13	44.121	280	61.26	112
36	13.373		62.16		8.636		87.20		39.313		32.27		43.841		60.14	
Mittl. Ort	12.049		41.94		7.098		71.04		37.384		37.42		43.192		31.80	
sec δ, tg δ	1.130		+0.527		1.035		+0.266		1.075		−0.393		1.830		+1.533	
a, *a′*	+2.9		+19.4		+3.0		+19.4		+3.2		+19.5		+2.6		+19.6	
b, *b′*	+0.03		+ 0.25		+0.02		+ 0.25		−0.03		+ 0.23		+0.10		+ 0.21	

[1]) Die jährliche Parallaxe (0."146) ist bereits berücksichtigt.

*) Bei Stern 873) und 875) lies Sept. 8.

Scheinbare Sternörter 1947

Tag	877) γ Tucanae				878) γ Piscium				879) γ Sculptoris				880) τ Pegasi			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1947	$23^h\ 14^m$		$-58°\ 31'$		$23^h\ 14^m$		$+2°\ 59'$		$23^h\ 15^m$		$-32°\ 48'$		$23^h\ 17^m$		$+23°\ 26'$	
	s		"		s		"		s		"		s		"	
Jan. 1	19.210	229	59.04	131	23.556	84	25.69	79	56.528	109	93.66	37	59.089	112	59.76	120
11	18.981	190	57.73	178	23.472	69	24.90	77	56.419	87	93.29	69	58.977	98	58.56	138
21	18.791	143	55.95	219	23.403	51	24.13	73	56.332	64	92.60	99	58.879	77	57.18	152
31	18.648	93	53.76	254	23.352	28	23.40	65	56.268	36	91.61	129	58.802	53	55.66	158
Febr. 10	18.555	39	51.22	284	23.324	3	22.75	51	56.232	4	90.32	156	58.749	23	54.08	158
20	18.516	20	48.38	307	23.321	27	22.24	35	56.228	29	88.76	180	58.726	10	52.50	150
März 2	18.536	80	45.31	322	23.348	59	21.89	15	56.257	66	86.96	201	58.736	47	51.00	134
12	18.616	143	42.09	332	23.407	95	21.74	10	56.323	106	84.95	219	58.783	87	49.66	111
22	18.759	205	38.77	334	23.502	131	21.84	36	56.429	146	82.76	234	58.870	129	48.55	82
April 1	18.964	266	35.43	329	23.633	168	22.20	64	56.575	187	80.42	245	58.999	171	47.73	48
11	19.230	326	32.14	318	23.801	205	22.84	92	56.762	227	77.97	250	59.170	212	47.25	11
21	19.556	381	28.96	300	24.006	238	23.76	119	56.989	265	75.47	250	59.382	248	47.14	28
Mai 1	19.937	430	25.96	275	24.244	267	24.95	145	57.254	299	72.97	246	59.630	280	47.42	68
11	20.367	470	23.21	245	24.511	291	26.40	167	57.553	327	70.51	236	59.910	305	48.10	107
21	20.837	501	20.76	208	24.802	309	28.07	185	57.880	349	68.15	220	60.215	323	49.17	142
31	21.338	521	18.68	167	25.111	319	29.92	198	58.229	362	65.95	199	60.538	333	50.59	174
Juni 10	21.859	529	17.01	122	25.430	321	31.90	207	58.591	366	63.96	173	60.871	334	52.33	201
20	22.388	523	15.79	74	25.751	314	33.97	209	58.957	362	62.23	143	61.205	326	54.34	224
30	22.911	504	15.05	25	26.065	301	36.06	206	59.319	349	60.80	108	61.531	310	56.58	239
Juli 10	23.415	471	14.80	24	26.366	278	38.12	199	59.668	326	59.72	73	61.841	287	58.97	250
20	23.886	427	15.04	73	26.644	250	40.11	186	59.994	295	58.99	34	62.128	256	61.47	254
30	24.313	370	15.77	120	26.894	217	41.97	169	60.289	257	58.65	4	62.384	221	64.01	252
Aug. 9	24.683	305	16.97	160	27.111	180	43.66	151	60.546	214	58.69	39	62.605	181	66.53	246
19	24.988	232	18.57	195	27.291	139	45.17	129	60.760	166	59.08	73	62.786	139	68.99	235
29	25.220	154	20.52	223	27.430	99	46.46	106	60.926	118	59.81	103	62.925	97	71.34	219
Sept. 8	$_{10}$25.374	76	22.75	243	$_{10}$27.529	59	47.52	81	$_{10}$61.044	68	60.84	128	$_{11}$63.022	56	73.53	199
18	25.450	2	25.18	252	27.588	21	48.33	59	61.112	20	62.12	145	63.078	16	75.52	178
28	25.448	75	27.70	251	27.609	13	48.92	37	61.132	23	63.57	156	63.094	20	77.30	153
Okt. 8	25.373	141	30.21	240	27.596	42	49.29	16	61.109	61	65.13	160	63.074	51	78.83	127
18	25.232	198	32.61	218	27.554	66	49.45	3	61.048	92	66.73	157	63.023	77	80.10	98
28	25.034	242	34.79	188	27.488	85	49.42	20	60.956	117	68.30	145	62.946	97	81.08	69
Nov. 7	24.792	274	36.67	150	27.403	97	49.22	34	60.839	134	69.75	127	62.849	113	81.77	40
17	24.518	294	38.17	104	27.306	104	48.88	47	60.705	144	71.02	105	62.736	123	82.17	9
27	24.224	299	39.21	54	27.202	106	48.41	58	60.561	145	72.07	78	62.613	128	82.26	21
Dez. 7	23.925	293	39.75	2	27.096	105	47.83	66	60.416	141	72.85	47	62.485	129	82.05	51
17	23.632	275	39.77	51	26.991	99	47.17	71	60.275	132	73.32	15	62.356	125	81.54	79
27	23.357	249	39.26	102	26.892	89	46.46	76	60.143	117	73.47	17	62.231	117	80.75	104
37	23.108		38.24		26.803		45.70		60.026		73.30		62.114		79.71	
Mittl. Ort	20.943		35.42		25.000		32.76		57.987		75.47		60.594		60.06	
sec δ, tg δ	1.915		−1.634		1.001		+0.052		1.190		−0.645		1.090		+0.434	
a, *a′*	+3.5		+19.6		+3.1		+19.6		+3.2		+19.7		+3.0		+19.7	
b, *b′*	−0.11		+ 0.20		0.00		+ 0.20		−0.04		+ 0.19		+0.03		+ 0.18	

Tag	882) 4 Cassiopeiae				884) ϰ Piscium				885) 70 Pegasi				888) 248 G. Aquarii			
	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1947	23h 22m		+61° 59′		23h 24m		+0° 57′		23h 26m		+12° 27′		23h 32m		−7° 45′	
	s		″		s		″		s		″		s		″	
Jan. 1	26.22	35	39.89	126	11.470	89	47.22	72	26.896	99	61.28	97	46.690	91	38.92	49
11	25.87	32	38.63	177	11.381	75	46.50	70	26.797	85	60.31	105	46.599	79	39.41	37
21	25.55	28	36.86	219	11.306	58	45.80	62	26.712	68	59.26	108	46.520	62	39.78	22
31	25.27	22	34.67	254	11.248	37	45.18	52	26.644	47	58.18	107	46.458	42	40.00	7
Febr. 10	25.05	15	32.13	277	11.211	12	44.66	39	26.597	21	57.11	101	46.416	18	40.07	$\overline{12}$
20	24.90	8	29.36	290	11.199	$\overline{16}$	44.27	22	26.576	$\overline{9}$	56.10	88	46.398	$\overline{10}$	39.95	31
März 2	24.82	$\overline{1}$	26.46	290	11.215	49	44.05	1	26.585	43	55.22	70	46.408	42	39.64	54
12	24.83	9	23.56	277	11.264	83	44.04	$\overline{22}$	26.628	79	54.52	47	46.450	76	39.10	77
22	24.92	18	20.79	254	11.347	121	44.26	48	26.707	118	54.05	20	46.526	113	38.33	101
April 1	25.10	26	18.25	221	11.468	158	44.74	75	26.825	158	53.85	$\overline{10}$	46.639	151	37.32	124
11	25.36	33	16.04	178	11.626	195	45.49	102	26.983	196	53.95	43	46.790	188	36.08	146
21	25.69	41	14.26	130	11.821	229	46.51	128	27.179	232	54.38	76	46.978	224	34.62	166
Mai 1	26.10	46	12.96	76	12.050	261	47.79	151	27.411	263	55.14	108	47.202	256	32.96	184
11	26.56	50	12.20	21	12.311	286	49.30	172	27.674	290	56.22	138	47.458	284	31.12	196
21	27.06	52	11.99	$\overline{36}$	12.597	305	51.02	188	27.964	308	57.60	164	47.742	304	29.16	205
31	27.58	54	12.35	92	12.902	316	52.90	199	28.272	320	59.24	187	48.046	317	27.11	207
Juni 10	28.12	54	13.27	144	13.218	320	54.89	206	28.592	323	61.11	204	48.363	323	25.04	206
20	28.66	52	14.71	194	13.538	316	56.95	207	28.915	319	63.15	217	48.686	321	22.98	198
30	29.18	48	16.65	237	13.854	303	59.02	203	29.234	305	65.32	223	49.007	310	21.00	186
Juli 10	29.66	45	19.02	276	14.157	283	61.05	193	29.539	284	67.55	224	49.317	291	19.14	169
20	30.11	39	21.78	307	14.440	256	62.98	179	29.823	257	69.79	219	49.608	266	17.45	148
30	30.50	33	24.85	331	14.696	224	64.77	162	30.080	224	71.98	211	49.874	235	15.97	125
Aug. 9	30.83	25	28.16	348	14.920	187	66.39	141	30.304	188	74.09	198	50.109	198	14.72	98
19	31.08	19	31.64	359	15.107	148	67.80	118	30.492	148	76.07	180	50.307	159	13.74	71
29	31.27	12	35.23	361	15.255	108	68.98	95	30.640	107	77.87	161	50.466	119	13.03	45
Sept. 8	[12] 31.39	4	38.84	356	[12] 15.363	68	69.93	70	[13] 30.747	67	79.48	139	[15] 50.585	78	12.58	19
17	31.43	$\overline{2}$	42.40	344	15.431	30	70.63	47	30.814	30	80.87	116	50.663	40	12.39	$\overline{5}$
27	31.41	10	45.84	326	15.461	$\overline{5}$	71.10	25	30.844	$\overline{5}$	82.03	93	50.703	4	12.44	25
Okt. 7	31.31	16	49.10	299	15.456	34	71.35	5	30.839	35	82.96	69	50.707	$\overline{27}$	12.69	43
17	31.15	21	52.09	267	15.422	59	71.40	$\overline{13}$	30.804	60	83.65	46	50.680	54	13.12	56
27	30.94	26	54.76	228	15.363	79	71.27	28	30.744	80	84.11	23	50.626	75	13.68	66
Nov. 6	30.68	30	57.04	183	15.284	92	70.99	41	30.664	95	84.34	1	50.551	89	14.34	71
16	30.38	34	58.87	133	15.192	101	70.58	52	30.569	106	84.35	$\overline{20}$	50.462	100	15.05	73
26	30.04	36	60.20	79	15.091	105	70.06	60	30.463	110	84.15	39	50.362	105	15.78	72
Dez. 6	29.68	37	60.99	23	14.986	105	69.46	66	30.353	111	83.76	58	50.257	105	16.50	68
16	29.31	37	61.22	$\overline{34}$	14.881	101	68.80	69	30.242	109	83.18	74	50.152	102	17.18	62
26	28.94	36	60.88	90	14.780	92	68.11	71	30.133	102	82.44	87	50.050	96	17.80	54
36	28.58		59.98		14.688		67.40		30.031		81.57		49.954		18.34	
Mittl. Ort	28.32		30.08		12.856		54.90		28.303		65.04		48.012		28.35	
sec δ, tg δ	2.129		+1.880		1.000		+0.017		1.024		+0.221		1.009		−0.136	
a, *a′*	+2.7		+19.8		+3.1		+19.8		+3.0		+19.8		+3.1		+19.9	
b, *b′*	+0.12		+ 0.16		0.00		+ 0.16		+0.01		+ 0.15		−0.01		+ 0.12	

Scheinbare Sternörter 1947

Tag	890) λ Andromedae AR.		890) λ Andromedae Dekl.		891) ι Andromedae AR.		891) ι Andromedae Dekl.		893) γ Cephei AR.		893) γ Cephei Dekl.		892) ι Piscium AR.		892) ι Piscium Dekl.	
1947	23^h 34^m		+46° 9′		23^h 35^m		+42° 58′		23^h 37^m		+77° 19′		23^h 37^m		+5° 20′	
	s		″		s		″		s		″		s		″	
Jan. 1	56.076	202	82.02	121	30.193	184	34.24	119	5.87	90	84.03	84	12.017	95	14.00	80
11	55.874	185	80.81	161	30.009	169	33.05	157	4.97	85	83.19	143	11.922	84	13.20	82
21	55.689	160	79.20	195	29.840	146	31.48	188	4.12	75	81.76	196	11.838	70	12.38	78
31	55.529	128	77.25	220	29.694	116	29.60	212	3.37	62	79.80	241	11.768	49	11.60	72
Febr. 10	55.401	87	75.05	236	29.578	79	27.48	225	2.75	48	77.39	276	11.719	26	10.88	62
20	55.314	41	72.69	243	29.499	35	25.23	230	2.27	32	74.63	300	11.693	3	10.26	47
März 2	55.273	11	70.26	239	29.464	15	22.93	225	1.95	13	71.63	310	11.696	35	9.79	28
12	55.284	68	67.87	224	29.479	67	20.68	209	1.82	6	68.53	307	11.731	70	9.51	4
22	55.352	126	65.63	200	29.546	121	18.59	185	1.88	25	65.46	293	11.801	108	9.47	21
April 1	55.478	183	63.63	167	29.667	176	16.74	151	2.13	42	62.53	268	11.909	147	9.68	49
11	55.661	238	61.96	127	29.843	228	15.23	112	2.55	59	59.85	231	12.056	185	10.17	77
21	55.899	288	60.69	82	30.071	276	14.11	68	3.14	74	57.54	186	12.241	221	10.94	106
Mai 1	56.187	331	59.87	33	30.347	317	13.43	20	3.88	85	55.68	135	12.462	254	12.00	133
11	56.518	365	59.54	17	30.664	349	13.23	29	4.73	94	54.33	80	12.716	281	13.33	157
21	56.883	389	59.71	67	31.013	374	13.52	77	5.67	101	53.53	22	12.997	302	14.90	177
31	57.272	402	60.38	116	31.387	387	14.29	123	6.68	103	53.31	37	13.299	315	16.67	194
Juni 10	57.674	406	61.54	160	31.774	389	15.52	167	7.71	102	53.68	94	13.614	321	18.61	204
20	58.080	397	63.14	200	32.163	383	17.19	204	8.73	100	54.62	149	13.935	319	20.65	209
30	58.477	378	65.14	236	32.546	365	19.23	238	9.73	95	56.11	199	14.254	307	22.74	210
Juli 10	58.855	351	67.50	266	32.911	339	21.61	265	10.68	86	58.10	245	14.561	289	24.84	205
20	59.206	315	70.16	288	33.250	305	24.26	286	11.54	77	60.55	286	14.850	264	26.89	195
30	59.521	273	73.04	306	33.555	264	27.12	300	12.31	64	63.41	319	15.114	233	28.84	181
Aug. 9	59.794	226	76.10	315	33.819	220	30.12	308	12.95	52	66.60	347	15.347	198	30.65	162
19	60.020	176	79.25	318	34.039	172	33.20	309	13.47	38	70.07	366	15.545	159	32.27	143
29	60.196	124	82.43	314	34.211	122	36.29	304	13.85	23	73.73	378	15.704	120	33.70	120
Sept. 8	60.320	72	85.57	306	34.333	74	39.33	294	14.08	9	77.51	383	15.824	80	34.90	96
17	60.392	24	88.63	291	34.407	26	42.27	278	14.17	6	81.34	379	15.904	43	35.86	74
27	60.416	23	91.54	269	34.433	18	45.05	257	14.11	21	85.13	368	15.947	9	36.60	50
Okt. 7	60.393	66	94.23	244	34.415	58	47.62	231	13.90	35	88.81	350	15.956	22	37.10	29
17	60.327	103	96.67	213	34.357	93	49.93	200	13.55	48	92.31	322	15.934	48	37.39	9
27	60.224	135	98.80	177	34.264	124	51.93	165	13.07	59	95.53	287	15.886	69	37.48	9
Nov. 6	60.089	162	100.57	137	34.140	148	53.58	126	12.48	71	98.40	245	15.817	85	37.39	26
16	59.927	183	101.94	95	33.992	167	54.84	85	11.77	79	100.85	196	15.732	96	37.13	40
26	59.744	198	102.89	49	33.825	182	55.69	42	10.98	87	102.81	141	15.636	102	36.73	52
Dez. 6	59.546	207	103.38	1	33.643	189	56.11	4	10.11	91	104.22	82	15.534	104	36.21	62
16	59.339	209	103.39	46	33.454	191	56.07	49	9.20	93	105.04	19	15.430	103	35.59	71
26	59.130	205	102.93	92	33.263	188	55.58	92	8.27	91	105.23	43	15.327	98	34.88	76
36	58.925		102.01		33.075		54.66		7.36		104.80		15.229		34.12	
Mittl. Ort	57.702		75.32		31.773		28.37		9.07		71.57		13.342		20.06	
sec δ, tg δ	1.444		+1.042		1.367		+0.932		4.562		+4.451		1.004		+0.093	
a, *a′*	+2.9		+19.9		+2.9		+19.9		+2.5		+19.9		+3.1		+19.9	
b, *b′*	+0.07		+ 0.11		+0.06		+ 0.11		+0.30		+ 0.10		+0.01		+ 0.10	

Tag	894) ω² Aquarii AR.		894) Dekl.		895) 41 H. Cephei AR.		895) Dekl.		896) δ Sculptoris AR.		896) Dekl.		898) φ Pegasi AR.		898) Dekl.	
1947	23ʰ 39ᵐ		−14° 50′		23ʰ 45ᵐ		+67° 30′		23ʰ 46ᵐ		−28° 25′		23ʰ 49ᵐ		+18° 49′	
	s		″		s		″		s		″		s		″	
Jan. 1	57.203	98	30.12	30	19.50	47	55.74	89	8.878	117	41.42	5	45.960	114	32.10	95
11	57.105	84	30.42	13	19.03	44	54.85	145	8.761	103	41.37	36	45.846	106	31.15	110
21	57.021	69	30.55	8	18.59	40	53.40	194	8.658	85	41.01	67	45.740	92	30.05	120
31	56.952	49	30.47	30	18.19	34	51.46	235	8.573	63	40.34	98	45.648	73	28.85	126
Febr. 10	56.903	24	30.17	52	17.85	25	49.11	267	8.510	37	39.36	126	45.575	48	27.59	124
20	56.879	3	29.65	74	17.60	17	46.44	287	8.473	6	38.10	152	45.527	18	26.35	117
März 2	56.882	35	28.91	97	17.43	6	43.57	296	8.467	28	36.58	178	45.509	16	25.18	104
12	56.917	71	27.94	120	17.37	4	40.61	291	8.495	66	34.80	199	45.525	54	24.14	83
22	56.988	108	26.74	143	17.41	15	37.70	275	8.561	106	32.81	218	45.579	96	23.31	59
April 1	57.096	146	25.31	163	17.56	25	34.95	248	8.667	148	30.63	233	45.675	138	22.72	29
11	57.242	184	23.68	182	17.81	36	32.47	212	8.815	188	28.30	245	45.813	179	22.43	5
21	57.426	222	21.86	197	18.17	44	30.35	167	9.003	229	25.85	251	45.992	219	22.48	38
Mai 1	57.648	255	19.89	209	18.61	51	28.68	117	9.232	266	23.34	252	46.211	255	22.86	74
11	57.903	284	17.80	215	19.12	58	27.51	62	9.498	297	20.82	248	46.466	284	23.60	108
21	58.187	306	15.65	218	19.70	61	26.89	5	9.795	323	18.34	238	46.750	308	24.68	140
31	58.493	322	13.47	214	20.31	64	26.84	50	10.118	342	15.96	221	47.058	323	26.08	168
Juni 10	58.815	329	11.33	205	20.95	64	27.34	106	10.460	351	13.75	201	47.381	329	27.76	191
20	59.144	328	9.28	191	21.59	63	28.40	158	10.811	352	11.74	174	47.710	328	29.67	211
30	59.472	319	7.37	173	22.22	60	29.98	206	11.163	344	10.00	144	48.038	318	31.78	224
Juli 10	59.791	301	5.64	149	22.82	56	32.04	249	11.507	328	8.56	109	48.356	300	34.02	231
20	60.092	277	4.15	123	23.38	50	34.53	287	11.835	303	7.47	73	48.656	276	36.33	234
30	60.369	246	2.92	94	23.88	43	37.40	317	12.138	270	6.74	35	48.932	244	38.67	231
Aug. 9	60.615	210	1.98	64	24.31	36	40.57	340	12.408	233	6.39	2	49.176	209	40.98	222
19	60.825	171	1.34	33	24.67	27	43.97	357	12.641	190	6.41	39	49.385	171	43.20	211
29	60.996	129	1.01	4	24.94	19	47.54	367	12.831	145	6.80	71	49.556	132	45.31	195
Sept. 8	61.125	87	0.97	23	25.13	10	51.21	368	12.976	100	7.51	100	49.688	91	47.26	176
17*)	[16] 61.212	48	1.20	47	[18] 25.23	2	54.89	363	[18] 13.076	54	8.51	124	[19] 49.779	53	49.02	155
27	61.260	10	1.67	66	25.25	7	58.52	349	13.130	12	9.75	140	49.832	18	50.57	132
Okt. 7	61.270	23	2.33	82	25.18	15	62.01	330	13.142	26	11.15	151	49.850	14	51.89	108
17	61.247	51	3.15	91	25.03	21	65.31	301	13.116	58	12.66	153	49.836	43	52.97	84
27	61.196	73	4.06	97	24.82	29	68.32	266	13.058	86	14.19	149	49.793	65	53.81	58
Nov. 6	61.123	91	5.03	96	24.53	35	70.98	225	12.972	106	15.68	137	49.728	85	54.39	34
16	61.032	102	5.99	91	24.18	40	73.23	177	12.866	120	17.05	121	49.643	99	54.73	8
26	60.930	108	6.90	83	23.78	43	75.00	124	12.746	129	18.26	98	49.544	108	54.81	16
Dez. 6	60.822	110	7.73	71	23.35	47	76.24	67	12.617	131	19.24	72	49.436	115	54.65	40
16	60.712	107	8.44	57	22.88	47	76.91	8	12.486	129	19.96	44	49.321	118	54.25	62
26	60.605	101	9.01	41	22.41	48	76.99	51	12.357	121	20.40	12	49.203	115	53.63	82
36	60.504		9.42		21.93		76.48		12.236		20.52		49.088		52.81	
Mittl. Ort	58.472		17.23		21.63		44.29		10.097		24.32		47.269		33.36	
sec δ, tg δ	1.034		−0.265		2.614		+2.416		1.137		−0.541		1.057		+0.341	
a, *a′*	+3.1		+20.0		+2.9		+20.0		+3.1		+20.0		+3.1		+20.0	
b, *b′*	−0.02		+ 0.09		+0.16		+ 0.06		−0.04		+ 0.06		+0.02		+ 0.04	

*) Bei Stern 895), 896) und 898) lies Sept. 18.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Tag	899) ρ Cassiopeiae AR.		Dekl.		900) 27 Piscium AR.		Dekl.		902) ω Piscium AR.		Dekl.		903) ε Tucanae AR.		Dekl.	
1947	$23^h\ 51^m$		$+57°\ 12'$		$23^h\ 55^m$		$-3°\ 50'$		$23^h\ 56^m$		$+6°\ 34'$		$23^h\ 57^m$		$-65°\ 51'$	
	s		"		s		"		s		"		s		"	
Jan. 1	41.703	299	26.21	94	56.362	100	69.10	59	34.032	103	6.25	77	9.46	38	104.19	109
11	41.404	281	25.27	143	56.262	91	69.69	50	33.929	94	5.48	79	9.08	34	103.10	163
21	41.123	254	23.84	186	56.171	79	70.19	39	33.835	83	4.69	78	8.74	30	101.47	212
31	40.869	214	21.98	223	56.092	61	70.58	25	33.752	65	3.91	72	8.44	24	99.35	255
Febr. 10	40.655	163	19.75	249	56.031	40	70.83	9	33.687	44	3.19	63	8.20	17	96.80	292
20	40.492	103	17.26	265	55.991	14	70.92	10	33.643	18	2.56	50	8.03	11	93.88	322
März 2	40.389	36	14.61	270	55.977	17	70.82	31	33.625	15	2.06	32	7.92	3	90.66	344
12	40.353	38	11.91	263	55.994	52	70.51	54	33.640	50	1.74	10	7.89	5	87.22	359
22	40.391	114	9.28	245	56.046	88	69.97	78	33.690	87	1.64	14	7.94	13	83.63	366
April 1	40.505	189	6.83	217	56.134	128	69.19	103	33.777	128	1.78	42	8.07	21	79.97	364
11	40.694	260	4.66	180	56.262	167	68.16	128	33.905	168	2.20	70	8.28	29	76.33	356
21	40.954	326	2.86	136	56.429	205	66.88	149	34.073	207	2.90	99	8.57	38	72.77	340
Mai 1	41.280	383	1.50	88	56.634	239	65.39	170	34.280	241	3.89	126	8.95	44	69.37	317
11	41.663	428	0.62	36	56.873	270	63.69	187	34.521	271	5.15	151	9.39	50	66.20	287
21	42.091	462	0.26	17	57.143	293	61.82	199	34.792	295	6.66	172	9.89	56	63.33	250
31	42.553	482	0.43	71	57.436	311	59.83	207	35.087	312	8.38	190	10.45	60	60.83	207
Juni 10	43.035	488	1.14	122	57.747	319	57.76	209	35.399	320	10.28	202	11.05	62	58.76	161
20	43.523	483	2.36	170	58.066	321	55.67	206	35.719	321	12.30	209	11.67	64	57.15	109
30	44.006	463	4.06	213	58.387	313	53.61	198	36.040	313	14.39	212	12.31	63	56.06	56
Juli 10	44.469	433	6.19	251	58.700	299	51.63	185	36.353	297	16.51	208	12.94	60	55.50	2
20	44.902	393	8.70	283	58.999	276	49.78	167	36.650	274	18.59	199	13.54	57	55.48	53
30	45.295	344	11.53	309	59.275	247	48.11	146	36.924	246	20.58	187	14.11	51	56.01	105
Aug. 9	45.639	289	14.62	328	59.522	215	46.65	122	37.170	213	22.45	170	14.62	44	57.06	154
19	45.928	231	17.90	340	59.737	178	45.43	97	37.383	177	24.15	150	15.06	36	58.60	196
29	46.159	168	21.30	345	59.915	139	44.46	70	37.560	138	25.65	129	15.42	27	60.56	232
Sept. 8	46.327	105	24.75	343	60.054	100	43.76	44	37.698	99	26.94	106	15.69	17	62.88	259
18	46.432	44	28.18	334	60.154	63	43.32	19	37.797	63	28.00	83	15.86	8	65.47	276
27	[19] 46.476	15	31.52	320	[20] 60.217	27	43.13	3	[21] 37.860	27	28.83	59	[21] 15.94	2	68.23	283
Okt. 7	46.461	71	34.72	297	60.244	5	43.16	22	37.887	4	29.42	38	15.92	11	71.06	277
17	46.390	122	37.69	270	60.239	33	43.38	39	37.883	31	29.80	17	15.81	20	73.83	260
27	46.268	168	40.39	235	60.206	56	43.77	52	37.852	54	29.97	1	15.61	27	76.43	233
Nov. 6	46.100	209	42.74	195	60.150	74	44.29	61	37.798	72	29.96	19	15.34	33	78.76	195
16	45.891	243	44.69	150	60.076	87	44.90	66	37.726	87	29.77	33	15.01	38	80.71	150
26	45.648	269	46.19	101	59.989	97	45.56	70	37.639	96	29.44	46	14.63	40	82.21	98
Dez. 6	45.379	289	47.20	48	59.892	101	46.26	69	37.543	102	28.98	57	14.23	41	83.19	41
16	45.090	299	47.68	5	59.791	103	46.95	66	37.441	104	28.41	66	13.82	42	83.60	17
26	44.791	300	47.63	60	59.688	101	47.61	62	37.337	103	27.75	72	13.40	39	83.43	75
36	44.491		47.03		59.587		48.23		37.234		27.03		13.01		82.68	
Mittl. Ort	43.417		16.49		57.553		60.04		35.252		11.65		10.62		79.03	
sec δ, tg δ	1.846		+1.552		1.002		−0.067		1.007		+0.115		2.446		−2.233	
a, *a'*	+3.0		+20.0		+3.1		+20.0		+3.1		+20.0		+3.1		+20.0	
b, *b'*	+0.10		+ 0.04		0.00		+ 0.02		+0.01		+ 0.01		−0.15		+ 0.01	

Obere Kulmination Greenwich

Na) 43 Hev. Cephei $4^{m}.52$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$1^{h}\ 0^{m}$	$+85°\ 58'$	in 0.01^{s}	in $0.01''$	$1^{h}\ 0^{m}$	$+85°\ 58'$	in 0.01^{s}	in $0.01''$	$1^{h}\ 0^{m}$	$+85°\ 58'$	in 0.01^{s}	in $0.01''$	$1^{h}\ 0^{m}$	$+85°\ 58'$	in 0.01^{s}	in $0.01''$
1	63.23	41.20	−10	−8	53.84	40.82	+6	−8	47.04	35.60	+8	−5	43.85	26.66	+4	+10
2	62.93	41.29	−7	−11	53.55	40.70	+9	−4	46.86	35.35	+10	0	43.84	26.35	0	+11
3	62.63	41.37	−2	−12	53.27	40.58	+10	+2	46.68	35.09	+10	+5	43.84	26.05	−5	+9
4	62.33	41.44	+3	−10	52.99	40.46	+9	+7	46.50	34.84	+7	+9	43.84	25.74	−8	+6
5	62.02	41.50	+8	−6	52.71	40.33	+5	+10	46.33	34.58	+2	+11	43.85	25.44	−9	+2
6	61.72	41.56	+10	−1	52.43	40.19	+1	+12	46.17	34.31	−2	+11	43.87	25.13	−9	−2
7	61.41	41.61	+9	+5	52.16	40.05	−4	+10	46.01	34.04	−6	+8	*)43.89	24.83	−6	−5
8	61.11	41.66	+8	+9	51.89	39.90	−8	+8	45.86	33.77	−9	+5	43.91	24.53	−3	−6
9	60.80	41.70	+4	+12	51.62	39.74	−9	+4	45.71	33.49	−9	+1	43.94	24.23	+1	−7
10	60.49	41.73	−1	+12	51.35	39.58	−9	0	45.57	33.21	−8	−3	43.98	23.93	+5	−6
11	60.18	41.76	−5	+10	51.09	39.41	−6	−4	45.43	32.93	−5	−5	44.02	23.63	+8	−4
12	59.87	41.78	−8	+6	50.83	39.24	−3	−6	45.30	32.65	−1	−7	44.07	23.33	+9	−1
13	59.56	41.79	−9	+2	50.57	39.07	+1	−6	45.17	32.36	+3	−6	44.12	23.03	+9	+2
14	59.25	41.80	−8	−2	50.32	38.89	+5	−6	45.05	32.07	+6	−5	44.18	22.74	+7	+4
15	58.95	41.80	−5	−4	50.07	38.70	+7	−4	44.93	31.78	+9	−2	44.25	22.44	+4	+6
16	58.64	41.79	−1	−6	49.83	38.51	+9	−1	44.82	31.49	+9	0	44.32	22.15	0	+6
17	58.33	41.78	+2	−6	49.59	38.32	+9	+2	44.72	31.20	+8	+3	44.39	21.86	−4	+5
18	58.02	41.76	+6	−5	49.36	38.12	+7	+4	44.62	30.91	+6	+5	44.48	21.57	−8	+2
19	57.72	41.73	+8	−3	49.13	37.91	+5	+6	44.53	30.61	+3	+7	44.57	21.28	−10	−1
20	57.41	41.70	+9	−1	48.90	37.70	+1	+6	44.44	30.31	−2	+7	44.66	21.00	−10	−5
21	57.10	41.66	+8	+2	48.67	37.48	−3	+6	44.36	30.01	−6	+4	44.76	20.71	−8	−9
22	56.80	41.62	+7	+4	48.45	37.26	−7	+3	44.28	29.71	−9	+1	44.86	20.43	−4	−11
23	56.49	41.57	+4	+6	48.23	37.04	−10	0	44.21	29.41	−11	−2	44.97	20.15	+1	−10
24	56.19	41.51	0	+6	48.02	36.81	−11	−4	44.15	29.11	−10	−6	45.08	19.88	+6	−8
25	55.89	41.45	−5	+5	47.81	36.58	−9	−8	44.09	28.81	−7	−9	45.20	19.61	+9	−3
26	55.59	41.38	−8	+2	47.61	36.34	−5	−11	44.04	28.50	−2	−11	45.33	19.34	+11	+2
27	55.30	41.30	−10	−2	47.42	36.10	−1	−11	44.00	28.20	+3	−10	45.46	19.07	+10	+6
28	55.00	41.22	−11	−6	47.23	35.85	+4	−9	43.96	27.89	+7	−7	45.60	18.81	+6	+10
29	54.71	41.13	−8	−10	47.04	35.60	+8	−5	43.92	27.59	+10	−2	45.74	18.55	+1	+11
30	54.42	41.03	−4	−11					43.89	27.28	+10	+3	45.89	18.30	−3	+11
31	54.13	40.93	+1	−11					43.87	26.97	+8	+8	46.04	18.04	−7	+8
32	53.84	40.82	+6	−8					43.85	26.66	+4	+10				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 58′ 10″	14.227	+14.192	+85° 58′ 30″	14.247	+14.212	+85° 58′ 40″	14.256	+14.221
20	14.237	+14.202	40	14.256	+14.221	50	14.266	+14.231

$\alpha_{1947.0} = 1^{h}\ 1^{m}\ 6^{s}.28$ $\delta_{1947.0} = +85°\ 58'\ 26''.28$

*) Tag der doppelten unteren Kulmination: April 7.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Na) 43 Hev. Cephei $4^{m}.52$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$1^h\ 0^m$	$+85°\ 58'$	in $0^s.01$ | $0''.01$	$1^h\ 0^m$	$+85°\ 58'$	in $0^s.01$ | $0''.01$	$1^h\ 1^m$	$+85°\ 58'$	in $0^s.01$ | $0''.01$	$1^h\ 1^m$	$+85°\ 58'$	in $0^s.01$ | $0''.01$
1	46.04	18.04	− 7 + 8	52.84	12.23	− 5 − 5	1.80	11.26	+ 5 − 5	11.17	15.38	+ 8 + 4
2	46.20	17.79	− 9 + 4	53.11	12.11	− 1 − 6	2.11	11.31	+ 8 − 3	11.45	15.59	+ 6 + 6
3	46.36	17.54	− 9 0	53.38	12.01	+ 3 − 6	2.42	11.37	+ 9 0	11.72	15.81	+ 2 + 7
4	46.52	17.30	− 7 − 4	53.66	11.91	+ 6 − 5	2.73	11.43	+ 9 + 2	12.00	16.03	− 2 + 6
5	46.69	17.06	− 4 − 6	53.94	11.81	+ 8 − 3	3.05	11.50	+ 7 + 4	12.27	16.26	− 6 + 4
6	46.87	16.83	0 − 7	54.22	11.72	+ 9 0	3.36	11.58	+ 5 + 6	12.54	16.49	− 9 + 1
7	47.05	16.60	+ 4 − 6	54.51	11.64	+ 8 + 2	3.67	11.66	+ 1 + 6	12.81	16.73	−11 − 3
8	47.23	16.37	+ 7 − 4	54.80	11.56	+ 6 + 5	3.98	11.75	− 4 + 5	13.07	16.97	−10 − 8
9	47.42	16.15	+ 9 − 2	55.09	11.49	+ 3 + 6	4.29	11.84	− 7 + 3	13.34	17.21	− 8 −11
10	47.62	15.93	+ 9 + 1	55.38	11.42	− 1 + 6	4.60	11.93	−10 − 1	13.60	17.46	− 3 −12
11	47.82	15.71	+ 8 + 3	55.67	11.35	− 6 + 5	4.91	12.03	−11 − 5	13.86	17.71	+ 2 −12
12	48.02	15.50	+ 5 + 5	55.97	11.30	− 9 + 1	5.22	12.14	−10 − 9	14.12	17.97	+ 6 − 9
13	48.22	15.29	+ 1 + 6	56.26	11.25	−11 − 3	5.53	12.25	− 6 −12	14.37	18.23	+10 − 4
14	48.43	15.08	− 3 + 6	56.56	11.20	−11 − 7	5.84	12.37	− 1 −13	14.62	18.49	+11 + 2
15	48.64	14.88	− 7 + 3	56.86	11.16	− 8 −10	6.15	12.50	+ 4 −11	14.86	18.76	+ 9 + 7
16	48.86	14.69	−10 0	57.16	11.12	− 4 −12	6.45	12.63	+ 8 − 6	15.11	19.03	+ 5 +10
17	49.09	14.50	−11 − 4	57.47	11.09	+ 1 −11	6.75	12.76	+11 − 1	15.34	19.31	0 +11
18	49.31	14.31	−10 − 8	57.77	11.07	+ 7 − 8	7.06	12.90	+10 + 5	15.58	19.59	− 5 +10
19	49.54	14.13	− 6 −11	58.08	11.05	+10 − 3	7.36	13.05	+ 7 + 9	15.82	19.87	− 9 + 7
20	49.78	13.96	− 1 −11	58.38	11.04	+11 + 2	7.66	13.20	+ 3 +12	16.05	20.16	−10 + 3
21	50.02	13.79	+ 4 −10	58.69	11.03	+ 9 + 7	7.97	13.36	− 2 +11	16.28	20.45	− 9 − 1
22	50.26	13.62	+ 8 − 6	59.00	11.02	+ 6 +11	8.26	13.52	− 7 + 9	16.51	20.75	− 6 − 4
23	50.50	13.46	+11 0	59.30	11.03	+ 1 +12	8.56	13.68	− 9 + 5	16.73	21.05	− 1 − 6
24	50.75	13.30	+11 + 5	59.61	11.04	− 4 +11	8.86	13.85	− 9 + 1	16.95	21.35	+ 3 − 6
25	51.00	13.15	+ 8 + 9	59.92	11.05	− 8 + 8	9.15	14.03	− 7 − 3	17.16	21.65	+ 6 − 4
26	51.25	13.00	+ 4 +12	60.23	11.07	− 9 + 4	9.44	14.21	− 4 − 5	17.37	21.96	+ 9 − 2
27	51.51	12.86	− 1 +12	60.54	11.10	− 8 0	9.74	14.39	0 − 6	17.58	22.27	+10 +
28	51.77	12.73	− 6 + 9	60.86	11.13	− 6 − 4	10.02	14.58	+ 4 − 5	17.79	22.59	+ 9 +
29	52.03	12.60	− 8 + 6	61.17	11.17	− 2 − 6	10.31	14.78	+ 7 − 3	18.00	22.91	+ 7 + 6
30	52.30	12.47	− 9 + 2	61.48	11.21	+ 1 − 6	10.60	14.98	+ 9 − 1	18.20	23.22	+ 4 + 7
31	52.57	12.35	− 8 − 2	61.80	11.26	+ 5 − 5	10.88	15.18	+ 9 + 2	18.39	23.55	0 +
32	52.84	12.23	− 5 − 5				11.17	15.38	+ 8 + 4	18.59	23.87	− 5 + 5

δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 58′ 10″	14.227	+14.191	+85° 58′ 20″	14.237	+14.202
20	14.237	+14.202	30	14.247	+14.212

$\alpha_{1947.0} = 1^h\ 1^m\ 6^s.28$ $\delta_{1947.0} = +85°\ 58'\ 26''.28$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Na) 43 Hev. Cephei $4^m.52$

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	$1^h\ 1^m$	$+85°\ 58'$	in 0.01^s | $0.01''$	$1^h\ 1^m$	$+85°\ 58'$	in 0.01^s | $0.01''$	$1^h\ 1^m$	$+85°\ 58'$	in 0.01^s | $0.01''$	$1^h\ 1^m$	$+85°\ 58'$	in 0.01^s | $0.01''$
1	18.59	23.87	− 5 + 5	22.50	34.73	−11 − 4	22.24	46.97	+ 7 − 8	17.69	56.64	+10 + 5
2	18.78	24.20	− 8 + 3	22.56	35.11	− 9 − 8	22.15	47.34	+10 − 4	17.47	56.90	+ 7 + 9
3	18.96	24.53	−10 − 1	22.62	35.50	− 6 −11	22.06	47.70	+11 + 1	17.25	57.16	+ 3 +11
4	19.14	24.87	−10 − 6	22.68	35.88	− 2 −12	21.96	48.06	+ 9 + 6	17.02	57.41	− 2 +11
5	19.31	25.21	− 9 − 9	22.73	36.27	+ 3 −10	21.86	48.41	+ 6 +10	16.79	57.66	− 7 + 9
6	19.48	25.55	− 5 −12	22.77	36.66	+ 8 − 7	21.76	48.77	+ 1 +11	16.56	57.91	− 9 + 5
7	19.65	25.90	0 −12	{22.81 / 22.85	37.05 / 37.44	+10 − 2 / +10 + 3}	21.65	49.12	− 4 +10	16.32	58.15	− 9 0
8	19.82	26.24	+ 5 − 9	22.88	37.83	+ 8 + 7	21.54	49.48	− 8 + 7	16.09	58.38	− 7 − 3
9	19.98	26.59	+ 9 − 6	22.91	38.21	+ 3 +10	21.42	49.82	−10 + 3	15.84	58.61	− 4 − 5
10	20.14	26.94	+10 − 1	22.94	38.60	− 2 +10	21.29	50.17	− 9 − 1	15.60	58.84	0 − 6
11	20.29	27.29	+10 + 4	22.95	38.99	− 6 + 9	21.17	50.51	− 7 − 5	15.35	59.06	+ 4 − 5
12	20.44	27.65	+ 6 + 9	22.97	39.38	− 9 + 6	21.03	50.85	− 3 − 6	15.10	59.27	+ 8 − 3
13	20.59	28.00	+ 2 +11	22.98	39.76	−10 + 1	20.89	51.18	+ 1 − 6	14.84	59.48	+ 9 − 1
14	20.73	28.36	− 3 +10	22.98	40.15	− 9 − 3	20.75	51.51	+ 5 − 5	14.58	59.68	+10 + 2
15	20.87	28.73	− 7 + 8	22.98	40.53	− 5 − 5	20.60	51.84	+ 8 − 3	14.32	59.87	+ 8 + 5
16	21.00	29.09	−10 + 4	22.97	40.92	− 1 − 7	20.45	52.17	+10 0	14.06	60.06	+ 5 + 6
17	21.13	29.46	−10 0	22.96	41.31	+ 3 − 6	20.29	52.50	+ 9 + 3	13.79	60.25	+ 2 + 7
18	21.26	29.83	− 7 − 4	22.95	41.69	+ 7 − 4	20.14	52.82	+ 7 + 6	13.52	60.43	− 3 + 6
19	21.38	30.19	− 3 − 6	22.93	42.08	+ 9 − 1	19.97	53.14	+ 4 + 7	13.25	60.60	− 7 + 4
20	21.49	30.56	+ 1 − 6	22.90	42.46	+10 + 2	19.80	53.45	0 + 7	12.98	60.77	−10 + 1
21	21.61	30.93	+ 5 − 5	22.87	42.84	+ 9 + 5	19.63	53.76	− 4 + 6	12.70	60.93	−11 − 4
22	21.72	31.31	+ 8 − 3	22.84	43.23	+ 6 + 6	19.46	54.07	− 8 + 3	12.42	61.09	−11 − 8
23	21.82	31.68	+ 9 0	22.80	43.61	+ 2 + 7	19.27	54.37	−10 − 1	12.14	61.24	− 8 −11
24	21.92	32.06	+ 9 + 3	22.75	43.98	− 2 + 7	19.09	54.67	−11 − 5	11.86	61.38	− 3 −13
25	22.01	32.44	+ 8 + 5	22.70	44.36	− 6 + 5	18.90	54.96	− 9 − 9	11.57	61.52	+ 2 −12
26	22.10	32.82	+ 5 + 7	22.65	44.74	− 9 + 2	18.71	55.25	− 6 −12	11.28	61.65	+ 7 − 9
27	22.19	33.20	+ 1 + 7	22.59	45.12	−11 − 2	18.51	55.54	− 1 −12	10.99	61.78	+10 − 3
28	22.27	33.58	− 3 + 6	22.53	45.50	−10 − 6	18.31	55.82	+ 4 −10	10.70	61.90	+11 + 2
29	22.35	33.96	− 7 + 4	22.47	45.87	− 8 −10	18.11	56.10	+ 9 − 6	10.41	62.02	+ 9 + 7
30	22.43	34.34	−10 0	22.40	46.24	− 4 −11	17.90	56.37	+11 − 1	10.11	62.12	+ 5 +11
31	22.50	34.73	−11 − 4	22.32	46.61	+ 1 −11	17.69	56.64	+10 + 5	9.81	62.22	0 +12
32				22.24	46.97	+ 7 − 8				9.51	62.32	− 5 +10

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 58′ 20″	14.237	+14.202	+85° 58′ 40″	14.256	+14.221	+85° 59′ 0″	14.276	+14.241
30	14.247	+14.212	50	14.266	+14.231	10	14.286	+14.251

$\alpha_{1947.0} = 1^h\ 1^m\ 6^s.28$ $\delta_{1947.0} = +85°\ 58'\ 26''.28$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nb) α Ursae minoris 2^m12 var.

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	1^h46^m	+89° 1′	in $0^s.01$	in $0''.01$	1^h45^m	+89° 1′	in $0^s.01$	in $0''.01$	1^h45^m	+89° 0′	in $0^s.01$	in $0''.01$	1^h45^m	+89° 0′	in $0^s.01$	in $0''.01$
	s	"			s	"			s	"			s	"		
1	54.65	5.32	−43	− 6	75.88	7.17	+21	− 9	44.04	63.60	+30	− 7	23.98	55.51	+19	+10
2	53.48	5.48	−31	−10	74.62	7.12	+36	− 5	43.09	63.39	+39	− 2	23.71	55.21	+ 1	+11
3	52.31	5.63	−11	−11	73.37	7.07	+41	0	42.16	63.18	+39	+ 3	23.46	54.91	−17	+10
4	51.12	5.77	+10	−11	72.12	7.01	+37	+ 5	41.24	62.96	+30	+ 7	23.24	54.61	−29	+ 8
5	49.92	5.91	+29	− 7	70.87	6.94	+24	+ 9	40.35	62.74	+12	+10	23.04	54.31	−36	+ 4
6	48.71	6.04	+40	− 3	69.64	6.87	+ 6	+12	39.47	62.52	− 6	+11	22.83	54.01	−34	0
7	47.50	6.16	+42	+ 3	68.41	6.79	−12	+11	38.61	62.29	−22	+10	22.63	53.70	−25	− 4
8	46.28	6.28	+33	+ 8	67.18	6.71	−27	+ 9	37.77	62.06	−34	+ 7	22.46	53.40	−11	− 6
9	45.05	6.39	+18	+11	65.97	6.62	−35	+ 5	36.96	61.82	−35	+ 3	22.32	53.09	+ 4	− 7
10	43.81	6.50	0	+12	64.76	6.52	−34	+ 1	36.16	61.58	−31	− 1	22.20	52.79	+18	− 7
11	42.57	6.60	−18	+11	63.56	6.42	−26	− 2	35.38	61.33	−19	− 4	22.12	52.48	+29	− 5
12	41.32	6.69	−30	+ 8	62.38	6.31	−14	− 5	34.62	61.08	− 5	− 6	22.07	52.18	+35	− 3
13	40.07	6.78	−34	+ 4	61.20	6.20	+ 2	− 7	33.88	60.83	+10	− 7	22.04	51.87	+35	0
14	38.81	6.86	−30	0	60.03	6.08	+17	− 7	33.16	60.57	+23	− 6	22.03	51.57	+29	+ 3
15	37.55	6.94	−20	− 4	58.87	5.95	+28	− 5	32.46	60.31	+33	− 4	22.05	51.26	+17	+ 5
16	36.28	7.00	− 7	− 6	57.73	5.82	+34	− 3	31.78	60.05	+36	− 1	22.09	50.96	+ 1	+ 6
17	35.01	7.06	+ 7	− 7	56.59	5.68	+35	0	31.12	59.78	+32	+ 2	22.16	50.66	−16	+ 6
18	33.74	7.11	+21	− 6	55.47	5.54	+31	+ 2	30.49	59.52	+25	+ 4	22.25	50.35	−31	+ 4
19	32.47	7.16	+30	− 5	54.36	5.39	+20	+ 5	29.88	59.25	+12	+ 6	*)22.36	50.05	−41	+ 1
20	31.19	7.20	+34	− 2	53.26	5.24	+ 5	+ 6	29.29	58.97	− 5	+ 7	22.50	49.75	−43	− 3
21	29.91	7.23	+33	+ 1	52.18	5.08	−11	+ 6	28.72	58.70	−22	+ 6	22.66	49.45	−35	− 7
22	28.63	7.26	+27	+ 3	51.11	4.91	−27	+ 5	28.17	58.42	−35	+ 3	22.85	49.15	−20	−10
23	27.35	7.28	+15	+ 5	50.06	4.74	−37	+ 2	27.65	58.14	−42	− 1	23.05	48.86	0	−11
24	26.07	7.29	− 1	+ 6	49.02	4.56	−43	− 2	27.15	57.85	−39	− 5	23.28	48.56	+21	− 9
25	24.79	7.30	−17	+ 6	47.99	4.38	−38	− 6	26.67	57.57	−28	− 8	23.53	48.27	+35	− 5
26	23.51	7.30	−33	+ 4	46.98	4.19	−25	−10	26.21	57.28	−13	−10	23.80	47.98	+42	0
27	22.23	7.29	−42	0	45.98	4.00	− 7	−11	25.78	56.99	+ 8	−10	24.10	47.68	+39	+ 5
28	20.96	7.28	−43	− 4	45.00	3.80	+14	−10	25.37	56.70	+26	− 8	24.42	47.39	+27	+ 9
29	19.68	7.26	−35	− 8	44.04	3.60	+30	− 7	24.98	56.40	+38	− 4	24.76	47.11	+10	+11
30	18.41	7.24	−20	−11					24.62	56.11	+41	+ 1	25.12	46.82	− 9	+11
31	17.14	7.21	+ 2	−11					24.28	55.81	+34	+ 6	25.51	46.54	−25	+ 9
32	15.88	7.17	+21	− 9					23.98	55.51	+19	+10				

δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 0′ 40″	57.942	+57.934	+89° 1′ 0″	58.270	+58.261
50	58.106	+58.097	10	58.435	+58.426

$\alpha_{1947.0} = 1^h 46^m 52^s.47$ $\delta_{1947.0} = +89° 0' 50''.14$

*) Tag der doppelten unteren Kulmination: April 19.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nb) α Ursae minoris $2^{m}12$ var.

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$1^{h}\,45^{m}$	+89° 0′	in 0.01s | 0.01″	$1^{h}\,45^{m}$	+89° 0′	in 0.01s | 0.01″	$1^{h}\,46^{m}$	+89° 0′	in 0.01s | 0.01″	$1^{h}\,47^{m}$	+89° 0′	in 0.01s | 0.01″
1	25.51	46.54	−25 + 9	47.22	39.32	−21 − 4	21.03	36.38	+18 − 6	0.35	38.35	+33 + 3
2	25.91	46.26	−34 + 6	48.19	39.15	− 7 − 6	22.28	36.36	+29 − 5	1.59	38.50	+24 + 5
3	26.34	45.98	−35 + 1	49.17	38.98	+ 8 − 7	23.53	36.35	+34 − 2	2.83	38.65	+10 + 6
4	26.80	45.70	−29 − 2	50.17	38.82	+21 − 6	24.78	36.35	+35 + 1	4.06	38.81	− 6 + 7
5	27.27	45.43	−17 − 5	51.18	38.67	+30 − 4	26.04	36.35	+29 + 3	5.29	38.97	−22 + 6
6	27.77	45.16	− 3 − 7	52.20	38.52	+35 − 2	27.30	36.35	+19 + 5	6.51	39.14	−36 + 3
7	28.28	44.90	+12 − 7	53.24	38.37	+34 + 1	28.57	36.36	+ 4 + 6	7.73	39.31	−43 − 1
8	28.82	44.63	+25 − 6	54.28	38.23	+27 + 4	29.84	36.38	−13 + 6	8.94	39.49	−43 − 6
9	29.37	44.37	+33 − 4	55.34	38.09	+14 + 5	31.11	36.40	−29 + 4	10.14	39.67	−34 − 9
10	29.95	44.11	+35 − 1	56.41	37.96	− 3 + 6	32.38	36.42	−41 + 1	11.34	39.86	−17 −12
11	30.54	43.85	+31 + 2	57.50	37.83	−21 + 5	33.66	36.45	−46 − 3	12.53	40.05	+ 4 −12
12	31.16	43.60	+22 + 4	58.59	37.71	−35 + 3	34.93	36.49	−41 − 8	13.72	40.24	+22 −10
13	31.79	43.35	+ 7 + 6	59.70	37.59	−44 − 1	36.21	36.53	−28 −11	14.90	40.44	+37 − 6
14	32.45	43.10	−10 + 6	60.81	37.48	−45 − 5	37.49	36.58	− 8 −13	16.07	40.65	+41 0
15	33.12	42.86	−27 + 5	61.93	37.37	−36 − 9	38.77	36.63	+13 −12	17.23	40.86	+36 + 5
16	33.81	42.62	−39 + 2	63.06	37.27	−19 −11	40.05	36.69	+30 − 8	18.39	41.07	+21 + 9
17	34.52	42.38	−45 − 2	64.21	37.17	+ 2 −12	41.33	36.75	+41 − 3	19.53	41.29	+ 2 +12
18	35.25	42.15	−41 − 6	65.36	37.08	+23 −10	42.61	36.82	+42 + 3	20.67	41.51	−17 +11
19	36.00	41.92	−28 −10	66.52	37.00	+38 − 5	43.89	36.90	+32 + 8	21.80	41.74	−31 + 9
20	36.76	41.70	− 9 −11	67.69	36.92	+43 0	45.17	36.98	+15 +11	22.92	41.97	−36 + 5
21	37.54	41.48	+13 −10	68.87	36.84	+40 + 6	46.45	37.07	− 6 +12	24.04	42.21	−33 0
22	38.34	41.26	+31 − 7	70.05	36.77	+26 +10	47.72	37.16	−23 +10	25.14	42.45	−23 − 3
23	39.16	41.05	+42 − 2	71.25	36.71	+ 7 +12	49.00	37.26	−33 + 7	26.23	42.69	− 7 − 5
24	39.99	40.84	+43 + 3	72.45	36.65	−13 +12	50.27	37.36	−35 + 3	27.31	42.94	+ 9 − 6
25	40.84	40.63	+34 + 8	73.66	36.59	−27 + 9	51.54	37.46	−29 − 1	28.38	43.19	+24 − 5
26	41.70	40.43	+17 +11	74.87	36.54	−34 + 5	52.81	37.57	−16 − 4	29.44	43.45	+34 − 3
27	42.58	40.23	− 1 +12	76.09	36.50	−33 + 1	54.07	37.69	− 1 − 6	30.49	43.71	+37 − 1
28	43.48	40.04	−19 +11	77.32	36.46	−24 − 3	55.34	37.81	+14 − 6	31.53	43.97	+36 + 2
29	44.39	39.85	−31 + 7	78.55	36.43	−11 − 5	56.60	37.94	+27 − 5	32.56	44.24	+28 + 5
30	45.32	39.67	−35 + 3	79.79	36.40	+ 4 − 6	57.85	38.07	+34 − 3	33.58	44.51	+16 + 6
31	46.26	39.49	−32 − 1	81.03	36.38	+18 − 6	59.10	38.21	+36 0	34.59	44.78	0 + 7
32	47.22	39.32	−21 − 4				60.35	38.35	+33 + 3	35.59	45.06	−16 + 6

δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 0′ 30″	57.780	+57.771	+89° 0′ 40″	57.942	+57.934
40	57.942	+57.934	50	58.106	+58.097

$\alpha_{1947.0} = 1^{h}\,46^{m}\,52^{s}.47$ $\delta_{1947.0} = +89°\,0'\,50''.14$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nb) α Ursae minoris $2^m 12$ var.

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	$1^h 47^m$	+89° 0′	in 0.01s | 0.01″	$1^h 47^m$	+89° 0′	in 0.01s | 0.01″	$1^h 47^m$	+89° 1′	in 0.01s | 0.01″	$1^h 47^m$	+89° 1′	in 0.01s | 0.01″
1	35.59	45.06	−16 + 6	59.08	54.89	−43 − 2	67.05	7.09	+23 −10	55.69	17.79	+42 + 3
2	36.57	45.34	−30 + 4	59.62	55.26	−39 − 6	66.97	7.47	+37 − 6	55.00	18.11	+31 + 8
3	37.54	45.63	−40 + 1	60.14	55.63	−27 − 9	66.88	7.86	+42 − 1	54.29	18.42	+14 +11
4	38.50	45.92	−42 − 4	60.65	56.00	−10 −11	66.76	8.24	+38 + 4	53.56	18.73	− 6 +11
5	39.44	46.21	−36 − 8	61.13	56.37	+10 −11	66.62	8.62	+25 + 9	52.82	19.03	−24 +10
6	40.38	46.51	−23 −11	61.60	56.74	+28 − 9	66.46	9.00	+ 6 +11	52.05	19.33	−34 + 6
7	41.30	46.81	− 4 −12	62.05	57.12	+39 − 4	66.28	9.37	−13 +11	51.27	19.62	−36 + 2
8	42.21	47.11	+16 −11	62.48	57.49	+41 + 1	66.07	9.75	−29 + 8	50.47	19.91	−30 − 2
9	43.11	47.42	+31 − 8	62.90	57.87	+32 + 6	65.85	10.12	−37 + 5	49.65	20.20	−18 − 5
10	43.99	47.73	+40 − 3	63.29	58.25	+16 + 9	65.60	10.49	−36 0	48.81	20.48	− 1 − 6
11	44.86	48.05	+36 + 3	63.67	58.63	− 3 +11	65.33	10.86	−27 − 3	47.95	20.76	+15 − 6
12	45.71	48.37	+24 + 8	64.03	59.01	−21 +10	65.04	11.23	−13 − 6	47.08	21.03	+28 − 5
13	46.55	48.69	+ 9 +10	64.37	59.39	−34 + 7	64.73	11.60	+ 4 − 7	46.19	21.30	+36 − 2
14	47.38	49.02	−10 +11	64.69	59.77	−38 + 3	64.40	11.97	+20 − 6	45.28	21.56	+37 0
15	48.19	49.34	−27 + 9	65.00	60.16	−34 − 1	64.05	12.33	+31 − 4	44.36	21.82	+33 + 3
16	48.99	49.67	−37 + 6	65.28	60.54	−22 − 4	63.68	12.69	+38 − 1	43.42	22.07	+23 + 5
17	49.77	50.00	−37 + 2	65.54	60.92	− 5 − 6	63.29	13.05	+37 + 1	42.47	22.32	+ 9 + 7
18	50.54	50.33	−29 − 2	65.79	61.31	+11 − 7	62.88	13.41	+30 + 4	41.50	22.56	− 9 + 7
19	51.29	50.67	−15 − 5	{66.01 66.22	61.69 62.08	+27 − 5 +35 − 3}	62.45	13.77	+17 + 6	40.51	22.80	−25 + 5
20	52.03	51.01	+ 2 − 6	66.40	62.46	+38 0	62.00	14.12	+ 2 + 7	39.51	23.03	−38 + 2
21	52.75	51.35	+18 − 6	66.57	62.85	+36 + 3	61.53	14.47	−16 + 7	38.50	23.26	−45 − 2
22	53.45	51.69	+31 − 4	66.71	63.24	+26 + 5	61.03	14.81	−31 + 4	37.47	23.48	−44 − 6
23	54.14	52.04	+37 − 2	66.84	63.63	+12 + 7	60.52	15.15	−41 + 1	36.43	23.70	−34 −10
24	54.81	52.39	+38 + 1	66.94	64.01	− 5 + 7	59.98	15.49	−45 − 3	35.37	23.91	−16 −12
25	55.47	52.74	+32 + 4	67.03	64.40	−21 + 6	59.43	15.83	−39 − 8	34.30	24.12	+ 5 −12
26	56.11	53.09	+20 + 6	67.09	64.79	−34 + 3	58.86	16.17	−25 −11	33.21	24.32	+25 −10
27	56.74	53.45	+ 6 + 7	67.13	65.17	−42 0	58.26	16.50	− 6 −12	32.12	24.51	+39 − 6
28	57.35	53.81	−11 + 7	67.16	65.56	−42 − 4	57.65	16.83	+15 −11	31.01	24.70	+43 0
29	57.95	54.17	−26 + 5	67.16	65.94	−33 − 8	57.01	17.15	+32 − 8	29.88	24.88	+37 + 6
30	58.52	54.53	−37 + 2	67.15	66.33	−17 −11	56.36	17.47	+42 − 3	28.75	25.06	+23 +10
31	59.08	54.89	−43 − 2	67.11	66.71	+ 2 −11	55.69	17.79	+42 + 3	27.61	25.23	+ 3 +12
32				67.05	67.09	+23 −10				26.46	25.39	−17 +11

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 0′ 40″	57.942	+57.934	+89° 1′ 0″	58.270	+58.261	+89° 1′ 20″	58.601	+58.592
50	58.106	+58.097	10	58.435	+58.426	30	58.768	+58.759

$\alpha_{1947.0} = 1^h\ 46^m\ 52^s.47$ $\delta_{1947.0} = +89°\ 0'\ 50''.14$

Nc) Grb 750 Cepheus 6ᵐ70

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$4^h 19^m$	+85° 24′	in 0.01ˢ 0.01″	$4^h 18^m$	+85° 24′	in 0.01ˢ 0.01″	$4^h 18^m$	+85° 24′	in 0.01ˢ 0.01″	$4^h 18^m$	+85° 24′	in 0.01ˢ 0.01″
1	6.60ˢ	49.04″	−12 + 1	61.30ˢ	56.39″	− 2 −11	54.29ˢ	58.53″	+ 2 −10	46.88ˢ	55.39″	+ 9 + 5
2	6.49	49.34	−11 − 4	61.07	56.55	+ 4 −10	54.03	58.52	+ 6 − 7	46.68	55.21	+ 7 + 9
3	6.38	49.64	− 9 − 8	60.84	56.70	+ 8 − 6	53.77	58.50	+ 9 − 3	46.49	55.02	+ 3 +11
4	6.27	49.93	− 4 −10	60.61	56.85	+10 − 1	53.50	58.47	+10 + 2	46.29	54.83	− 1 +11
5	6.14	50.22	+ 1 −10	60.37	56.99	+10 + 4	53.24	58.44	+ 8 + 7	46.10	54.63	− 4 + 8
6	6.02	50.50	+ 6 − 8	60.14	57.12	+ 8 + 9	52.99	58.40	+ 5 +10	45.92	54.43	− 6 + 5
7	5.89	50.79	+10 − 4	59.90	57.25	+ 4 +11	52.73	58.36	+ 2 +11	45.74	54.22	− 7 0
8	5.75	51.06	+11 + 2	59.66	57.37	0 +11	52.47	58.31	− 2 +10	45.57	54.01	− 6 − 3
9	5.61	51.34	+10 + 7	59.41	57.49	− 3 + 9	52.22	58.25	− 5 + 7	45.40	53.80	− 3 − 6
10	5.46	51.61	+ 7 +10	59.17	57.60	− 5 + 6	51.96	58.18	− 7 + 3	45.23	53.58	− 1 − 8
11	5.31	51.88	+ 3 +12	58.92	57.71	− 6 + 2	51.71	58.11	− 6 − 1	45.06	53.36	+ 2 − 9
12	5.16	52.14	− 1 +11	58.67	57.81	− 6 − 2	51.45	58.04	− 5 − 5	44.90	53.13	+ 5 − 7
13	5.00	52.40	− 4 + 8	58.42	57.90	− 3 − 6	51.20	57.96	− 2 − 7	44.75	52.91	+ 7 − 5
14	4.84	52.66	− 6 + 4	58.17	57.99	− 1 − 8	50.95	57.87	+ 1 − 9	44.59	52.67	+ 7 − 2
15	4.68	52.91	− 6 0	57.92	58.07	+ 2 − 8	50.71	57.78	+ 4 − 8	44.44	52.44	+ 6 + 2
16	4.51	53.15	− 5 − 4	57.67	58.14	+ 5 − 7	50.46	57.68	+ 6 − 7	44.30	52.20	+ 4 + 5
17	4.34	53.39	− 3 − 6	57.41	58.21	+ 6 − 5	50.22	57.58	+ 7 − 3	44.16	51.96	0 + 8
18	4.16	53.63	0 − 8	57.15	58.27	+ 7 − 3	49.98	57.47	+ 7 0	44.03	51.71	− 3 + 8
19	3.98	53.86	+ 3 − 8	56.89	58.32	+ 7 + 1	49.74	57.36	+ 6 + 4	43.90	51.46	− 7 + 7
20	3.79	54.08	+ 5 − 7	56.63	58.37	+ 5 + 5	49.51	57.24	+ 3 + 6	43.77	51.21	−10 + 4
21	3.60	54.30	+ 6 − 4	56.37	58.42	+ 2 + 7	49.28	57.11	− 1 + 8	43.65	50.96	−11 − 1
22	3.41	54.52	+ 7 − 1	56.11	58.45	− 2 + 8	49.05	56.98	− 5 + 8	43.53	50.70	− 9 − 5
23	3.21	54.74	+ 6 + 2	55.85	58.48	− 6 + 7	48.81	56.84	− 8 + 6	43.41	50.44	− 6 − 9
24	3.01	54.94	+ 3 + 5	55.59	58.51	− 9 + 4	48.59	56.70	−10 + 2	43.30	50.18	− 1 −10
25	2.81	55.14	0 + 7	55.33	58.53	−11 0	48.36	56.56	−10 − 2	43.20	49.92	+ 4 − 9
26	2.60	55.34	− 4 + 8	55.07	58.54	−10 − 4	48.14	56.40	− 8 − 7	43.10	49.65	+ 8 − 6
27	2.39	55.53	− 8 + 6	54.81	58.54	− 8 − 8	47.92	56.25	− 4 −10	43.01	49.38	+10 − 2
28	2.18	55.71	−11 + 3	54.55	58.54	− 3 −10	47.71	56.09	0 −10	42.92	49.11	+10 + 3
29	1.96	55.89	−11 − 2	54.29	58.53	+ 2 −10	47.50	55.92	+ 5 − 9	42.84	48.84	+ 8 + 8
30	1.74	56.06	−10 − 6				47.29	55.75	+ 8 − 5	42.76	48.56	+ 5 +11
31	1.52	56.23	− 6 −10				47.09	55.57	+10 0	42.69	48.29	+ 1 +11
32	1.30	56.39	− 2 −11				46.88	55.39	+ 9 + 5			

δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 24′ 40″	12.499	+12.459	+85° 24′ 50″	12.507	+12.467
50	12.507	+12.467	60	12.514	+12.474

$\alpha_{1947.0} = 4^h\ 18^m\ 59^s.20$ $\delta_{1947.0} = +85°\ 24'\ 37''.68$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nc) Grb 750 Cepheus $6^{m}70$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$4^h\ 18^m$	$+85°\ 24'$	in $0^s.01$	in $0''.01$	$4^h\ 18^m$	$+85°\ 24'$	in $0^s.01$	in $0''.01$	$4^h\ 18^m$	$+85°\ 24'$	in $0^s.01$	in $0''.01$	$4^h\ 18^m$	$+85°\ 24'$	in $0^s.01$	in $0''.01$
	s	″			s	″			s	″			s	″		
1	42.69	48.29	+1	+11	42.85	39.44	−6	0	47.33	32.07	0	−8	55.26	27.70	+7	−3
2	42.62	48.01	−3	+10	42.93	39.16	−5	−4	47.54	31.87	+3	−8	55.55	27.62	+7	0
3	42.55	47.73	−6	+6	43.02	38.89	−2	−7	47.76	31.67	+5	−7	55.85	27.56	+5	+4
4	42.49	47.45	−7	+2	43.12	38.61	0	−8	47.98	31.48	+7	−5	56.14	27.49	+3	+6
5	42.44	47.17	−6	−2	43.21	38.34	+3	−8	48.20	31.29	+7	−2	56.44	27.43	−1	+8
6	42.39	46.89	−4	−5	43.32	38.07	+5	−7	48.42	31.11	+7	+1	56.74	27.38	−5	+8
7	42.34	46.61	−2	−8	43.43	37.80	+7	−4	48.65	30.93	+4	+5	57.05	27.33	−9	+5
8	42.30	46.32	+1	−9	43.54	37.53	+7	−1	48.88	30.75	+1	+7	57.35	27.29	−11	+2
9	42.27	46.03	+4	−8	43.66	37.27	+5	+3	49.12	30.58	−3	+8	57.65	27.25	−12	−3
10	42.24	45.74	+6	−6	43.78	37.00	+3	+6	49.36	30.41	−7	+7	57.96	27.21	−10	−7
11	42.22	45.45	+7	−3	43.90	36.74	−1	+8	49.59	30.24	−11	+4	58.27	27.18	−7	−11
12	42.20	45.17	+7	+1	44.03	36.48	−5	+8	49.84	30.08	−12	0	58.57	27.15	−2	−12
13	42.18	44.88	+5	+4	44.17	36.23	−9	+6	50.08	29.92	−12	−5	58.88	27.13	+4	−10
14	42.17	44.59	+2	+7	44.31	35.97	−12	+3	50.33	29.76	−9	−9	59.19	27.11	+8	−6
15	42.17	44.30	−2	+8	44.45	35.72	−12	−2	50.58	29.61	−4	−11	59.50	27.10	+10	−1
16	42.17	44.02	−6	+7	44.60	35.47	−10	−7	50.84	29.46	+1	−11	59.81	27.10	+10	+5
17	42.17	43.73	−10	+5	44.76	35.22	−6	−10	51.10	29.32	+6	−8	60.13	27.10	+7	+9
18	42.18	43.44	−11	+1	44.92	34.98	−1	−11	51.36	29.18	+10	−4	60.44	27.10	+	+12
19	42.20	43.15	−11	−4	45.08	34.74	+4	−10	51.63	29.05	+11	+2	60.75	27.11	−1	+11
20	42.22	42.86	−8	−8	45.24	34.50	+8	−6	51.89	28.92	+9	+7	61.06	27.12	−	+9
21	42.25	42.57	−4	−10	45.41	34.26	+11	−1	52.16	28.79	+6	+11	61.38	27.13	−	+5
22	42.28	42.28	+2	−11	45.59	34.03	+11	+5	52.43	28.67	+2	+12	61.69	27.15	−6	0
23	42.31	41.99	+7	−8	45.76	33.80	+8	+9	52.70	28.55	−2	+11	62.01	27.18	−5	−4
24	42.35	41.70	+10	−4	45.95	33.57	+5	+12	52.98	28.44	−5	+8	62.32	27.21	−2	−6
25	42.40	41.42	+11	+2	46.13	33.35	0	+12	53.25	28.33	−6	+3	62.64	27.24	+1	−8
26	42.45	41.13	+10	+7	46.32	33.13	−3	+9	53.53	28.23	−5	−1	62.96	27.28	+4	−8
27	*)42.50	40.85	+7	+10	46.52	32.91	−5	+6	53.82	28.13	−4	−5	63.28	27.33	+7	−6
28	42.56	40.56	+3	+11	46.72	32.70	−6	+1	54.10	28.04	−1	−7	63.60	27.38	+8	−4
29	42.63	40.28	−1	+11	46.92	32.49	−5	−3	54.39	27.95	+2	−8	63.92	27.43	+8	0
30	42.70	40.00	−5	+8	47.12	32.28	−3	−6	54.68	27.86	+5	−7	64.24	27.49	+7	+3
31	42.77	39.72	−6	+4	47.33	32.07	0	−8	54.97	27.78	+7	−5	64.55	27.55	+4	+6
32	42.85	39.44	−6	0					55.26	27.70	+7	−3	64.87	27.62	+1	+8

δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 24′ 20″	12.484	+12.444	+85° 24′ 40″	12.499	+12.459
30	12.492	+12.451	50	12.507	+12.467

$\alpha_{1947.0} = 4^h\ 18^m\ 59^s.20$ $\delta_{1947.0} = +85°\ 24'\ 37''.68$

*) Tag der doppelten unteren Kulmination: Mai 27.

Nc) Grb 750 Cepheus $6^m\!.70$

Tag	September AR.	September Dekl.	September ☾ Glieder in $0^s.01$	September ☾ Glieder in $0''.01$	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder in $0^s.01$	Oktober ☾ Glieder in $0''.01$
	$4^h\,19^m$	$+85°\,24'$			$4^h\,19^m$	$+85°\,24'$		
1	$4^s.87$	$27''.62$	+ 1	+ 8	$14^s.04$	$31''.74$	− 9	+ 5
2	5.19	27.69	− 3	+ 8	14.32	31.94	−11	+ 1
3	5.51	27.77	− 7	+ 6	14.60	32.15	−11	− 4
4	5.82	27.85	−10	+ 3	14.88	32.37	− 9	− 8
5	6.14	27.94	−12	− 1	15.16	32.58	− 5	−11
6	6.45	28.03	−11	− 5	15.43	32.80	0	−11
7	6.77	28.13	− 8	− 9	15.70	33.03	+ 5	− 9
8	7.09	28.23	− 3	−11	15.97	33.25	+ 8	− 5
9	7.40	28.33	+ 2	−11	16.24	33.48	+ 9	0
10	7.71	28.44	+ 6	− 8	16.51	33.71	+ 9	+ 6
11	8.03	28.55	+ 9	− 3	16.77	33.95	+ 6	+ 9
12	8.34	28.67	+ 9	+ 3	17.03	34.19	+ 2	+11
13	8.65	28.79	+ 8	+ 7	17.29	34.44	− 2	+11
14	8.96	28.92	+ 4	+11	17.54	34.69	− 5	+ 8
15	9.27	29.05	+ 1	+11	17.79	34.94	− 7	+ 4
16	9.57	29.19	− 3	+10	18.04	35.20	− 7	− 1
17	9.88	29.33	− 6	+ 7	18.29	35.46	− 5	− 5
18	10.19	29.47	− 7	+ 2	18.54	35.72	− 2	− 7
19	10.50	29.62	− 6	− 2	18.78	35.99	+ 1	− 9
20	10.80	29.78	− 3	− 6	19.02	36.25	+ 5	− 8
21	11.10	29.93	0	− 8	19.25	36.52	+ 7	− 6
22	11.40	30.10	+ 3	− 8	19.48	36.80	+ 8	− 3
23	11.70	30.26	+ 6	− 7	19.71	37.08	+ 8	+ 1
24	12.00	30.43	+ 8	− 5	19.94	37.36	+ 6	+ 4
25	12.30	30.61	+ 8	− 1	20.16	37.65	+ 3	+ 7
26	12.59	30.79	+ 7	+ 2	20.38	37.94	− 1	+ 8
27	12.88	30.97	+ 5	+ 5	20.59	38.23	− 4	+ 8
28	13.17	31.16	+ 2	+ 7	20.80	38.52	− 8	+ 6
29	13.47	31.35	− 2	+ 8	21.01	38.82	−11	+ 2
30	13.76	31.54	− 6	+ 7	21.22	39.12	−11	− 2
31	14.04	31.74	− 9	+ 5	21.42	39.42	−10	− 6
32					21.62	39.73	− 6	−10

Tag	November AR.	November Dekl.	November ☾ Glieder in $0^s.01$	November ☾ Glieder in $0''.01$	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder in $0^s.01$	Dezember ☾ Glieder in $0''.01$
	$4^h\,19^m$	$+85°\,24'$			$4^h\,19^m$	$+85°\,24'$		
1	$21^s.62$	$39''.73$	− 6	−10	$25^s.62$	$50''.06$	+10	− 4
2	21.81	40.03	− 1	−11	25.67	50.41	+10	+ 2
3	22.00	40.34	+ 4	−10	25.72	50.76	+ 9	+ 7
4	22.18	40.66	+ 8	− 7	25.76	51.11	+ 6	+10
5	22.36	40.97	+10	− 2	25.80	51.46	+ 1	+12
6	22.54	41.29	+10	+ 3	25.83	51.81	− 2	+10
7	22.71	41.61	+ 7	+ 8	25.86	52.16	− 5	+ 7
8	22.88	41.93	+ 4	+11	25.89	52.51	− 7	+ 3
9	23.05	42.25	0	+11	25.91	52.85	− 6	− 1
10	23.21	42.58	− 4	+ 9	25.92	53.20	− 4	− 5
11	23.37	42.90	− 6	+ 6	25.93	53.54	− 1	− 8
12	23.52	43.23	− 7	+ 1	25.93	53.89	+ 2	− 8
13	23.67	43.56	− 6	− 3	25.93	54.23	+ 5	− 7
14	23.81	43.89	− 3	− 6	25.92	54.57	+ 7	− 5
15	23.95	44.22	0	− 8	25.91	54.91	+ 8	− 2
16	24.09	44.56	+ 3	− 8	25.89	55.25	+ 7	+ 1
17	24.22	44.90	+ 6	− 7	25.87	55.59	+ 5	+ 4
18	24.35	45.24	+ 8	− 4	25.84	55.92	+ 2	+ 7
19	24.47	45.57	+ 8	− 1	25.81	56.26	− 2	+ 8
20	24.59	45.91	+ 7	+ 3	25.77	56.59	− 6	+ 8
21	24.70	46.26	+ 4	+ 6	25.73	56.92	−10	+ 5
22	24.81	46.60	+ 1	+ 8	25.68	57.25	−12	+ 1
23	24.91	46.94	− 3	+ 8	25.62	57.57	−12	− 3
24	25.01	47.29	− 7	+ 7	25.56	57.90	−10	− 8
25	25.10	47.63	−10	+ 4	25.50	58.22	− 6	−11
26	{25.19 25.27	47.98 48.33	−12 −11	0 − 5}	25.43	58.54	− 1	−12
27	25.35	48.67	− 8	− 9	25.36	58.86	+ 4	−10
28	25.43	49.02	− 4	−11	25.28	59.18	+ 8	− 6
29	25.50	49.37	+ 2	−11	25.20	59.49	+10	− 1
30	25.56	49.72	+ 6	− 8	25.11	59.80	+10	+ 5
31	25.62	50.06	+10	− 4	25.02	60.10	+ 8	+ 9
32					24.92	60.41	+ 3	+12

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 24′ 20″	12.484	+12.444	+85° 24′ 40″	12.499	+12.459	+85° 25′ 0″	12.514	+12.474
30	12.492	+12.451	50	12.507	+12.467	10	12.522	+12.482

$\alpha_{1947.0} = 4^h\,18^m\,59^s\!.20$ $\delta_{1947.0} = +85°\,24'\,37''\!.68$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nd) 51 Hev. Cephei 5^{m}26

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$7^h\ 16^m$	$+87°\ 7'$	in $0^s.01$	in $0''.01$	$7^h\ 16^m$	$+87°\ 8'$	in $0^s.01$	in $0''.01$	$7^h\ 16^m$	$+87°\ 8'$	in $0^s.01$	in $0''.01$	$7^h\ 16^m$	$+87°\ 8'$	in $0^s.01$	in $0''.01$
1	$45^s.31$	$55''.38$	−7	+11	$46^s.52$	$5''.69$	−11	−7	$40^s.61$	$13''.27$	−7	−9	$29^s.19$	$17''.38$	+15	−2
2	45.49	55.69	−13	+9	46.42	6.01	−4	−10	40.30	13.48	+1	−10	28.79	17.42	+16	+2
3	45.65	56.00	−16	+5	46.30	6.32	+4	−10	39.99	13.69	+8	−9	28.38	17.45	+13	+7
4	45.81	56.32	−17	0	46.18	6.62	+11	−8	39.67	13.90	+13	−5	27.98	17.48	+8	+9
5	45.96	56.63	−14	−5	46.05	6.93	+16	−3	39.34	14.10	+16	0	27.58	17.50	+2	+9
6	46.10	56.95	−7	−9	45.91	7.23	+17	+1	39.01	14.29	+15	+4	27.17	17.51	−3	+8
7	46.23	57.27	0	−10	45.76	7.53	+15	+6	38.68	14.48	+12	+8	26.77	17.52	−7	+5
8	46.35	57.59	+8	−9	45.60	7.83	+10	+9	38.34	14.66	+6	+9	26.37	17.52	−10	+1
9	46.46	57.92	+15	−6	45.44	8.12	+4	+9	37.99	14.84	0	+9	25.96	17.51	−10	−3
10	46.57 46.66	58.24 58.57	+18 +17	−1 +3	45.27	8.41	−1	+8	37.64	15.01	−5	+7	25.56	17.50	−8	−6
11	46.75	58.90	+14	+7	45.09	8.70	−6	+5	37.29	15.18	−8	+3	25.16	17.48	−5	−9
12	46.83	59.22	+8	+9	44.90	8.99	−9	+2	36.93	15.34	−10	0	24.76	17.46	−1	−9
13	46.90	59.55	+2	+9	44.70	9.27	−9	−2	36.57	15.50	−9	−4	24.36	17.43	+3	−8
14	46.96	59.87	−3	+7	44.50	9.55	−8	−6	36.21	15.65	−7	−7	23.96	17.40	+7	−6
15	47.01	60.20	−7	+4	44.29	9.82	−5	−8	35.84	15.80	−3	−9	23.56	17.36	+9	−2
16	47.05	60.53	−9	0	44.07	10.10	−1	−9	35.47	15.94	+1	−9	23.17	17.31	+9	+2
17	47.08	60.86	−9	−4	43.84	10.36	+3	−8	35.10	16.07	+5	−7	22.78	17.26	+7	+6
18	47.11	61.18	−7	−7	43.61	10.63	+6	−7	34.72	16.20	+8	−5	22.38	17.20	+3	+9
19	47.12	61.51	−4	−8	43.37	10.89	+9	−3	34.34	16.32	+10	−1	22.00	17.14	−3	+10
20	47.13	61.84	0	−9	43.12	11.15	+9	+1	33.96	16.44	+9	+3	21.61	17.07	−8	+10
21	47.13	62.17	+4	−8	42.87	11.40	+8	+5	33.57	16.55	+6	+7	21.22	17.00	−13	+7
22	47.12	62.49	+7	−5	42.61	11.65	+4	+8	33.18	16.66	+1	+10	20.84	16.92	−16	+2
23	47.10	62.82	+9	−2	42.35	11.89	−1	+10	32.79	16.76	−5	+10	20.46	16.83	−14	−3
24	47.07	63.14	+9	+2	42.07	12.13	−7	+10	32.40	16.85	−10	+8	20.09	16.74	−10	−7
25	47.03	63.46	+6	+6	41.79	12.37	−13	+8	32.00	16.94	−14	+5	19.72	16.64	−4	−10
26	46.99	63.79	+2	+9	41.51	12.60	−16	+4	31.61	17.02	−16	0	19.35	16.54	+4	−10
27	46.93	64.11	−4	+10	41.22	12.83	−16	−1	31.21	17.10	−14	−5	18.98	16.43	+10	−8
28	46.87	64.42	−10	+10	40.92	13.05	−13	−6	30.81	17.17	−8	−8	18.62	16.32	+15	−4
29	46.79	64.74	−15	+7	40.61	13.27	−7	−9	30.41	17.23	−2	−10	18.26	16.20	+16	0
30	46.71	65.06	−17	+2					30.01	17.28	+6	−10	17.91	16.07	+15	+5
31	46.62	65.38	−16	−3					29.60	17.33	+12	−7	17.56	15.94	+10	+8
32	46.52	65.69	−11	−7					29.19	17.38	+15	−2				

δ	sec δ	tg δ	δ	sec δ	tg δ
+87° 7′ 50″	19.976	+19.951	+87° 8′ 10″	20.015	+19.990
60	19.995	+19.970	20	20.034	+20.009

$\alpha_{1947.0} = 7^h\ 16^m\ 26^s.15$ $\delta_{1947.0} = +87°\ 7'\ 54''.48$

Nd) 51 Hev. Cephei $5^m.26$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$7^h 16^m$	+87° 8′	in 0.01s | 0.01″	$7^h 16^m$	+87° 8′	in 0.01s | 0.01″	$7^h 16^m$	+87° 7′	in 0.01s | 0.01″	$7^h 16^m$	+87° 7′	in 0.01s | 0.01″
1	17.56	15.94	+10 + 8	9.19	9.66	− 8 + 4	7.09	60.88	− 7 − 6	11.77	51.33	+ 6 − 7
2	17.21	15.81	+ 5 +10	9.01	9.40	− 9 0	7.14	60.56	− 4 − 8	12.03	51.04	+ 9 − 4
3	16.86	15.67	− 1 + 9	8.85	9.14	− 9 − 4	7.19	60.25	0 − 9	12.29	50.75	+10 − 1
4	16.52	15.52	− 6 + 6	8.69	8.87	− 7 − 7	7.25	59.94	+ 4 − 8	12.56	50.46	+ 9 + 3
5	16.19	15.37	− 9 + 2	8.53	8.60	− 3 − 8	7.31	59.63	+ 7 − 6	12.84	50.17	+ 5 + 7
6	15.86	15.22	−10 − 1	8.39	8.33	0 − 9	7.39	59.31	+ 9 − 3	13.13	49.89	0 +10
7	15.53	15.06	− 9 − 5	8.25	8.05	+ 4 − 8	7.47	59.00	+ 9 + 1	13.42	49.61	− 6 +10
8	15.21	14.89	− 6 − 8	8.12	7.77	+ 7 − 5	7.55	58.68	+ 7 + 5	13.72	49.33	−12 + 9
9	14.90	14.72	− 3 − 9	8.00	7.49	+ 9 − 2	7.65	58.37	+ 3 + 8	14.02	49.05	−16 + 6
10	14.59	14.55	+ 2 − 9	7.88	7.21	+ 9 + 3	7.75	58.05	− 2 +11	14.33	48.78	−18 + 1
11	14.28	14.37	+ 5 − 7	7.77	6.92	+ 6 + 7	*) 7.86	57.74	− 9 +11	14.64	48.50	−17 − 4
12	13.98	14.19	+ 8 − 4	7.67	6.63	+ 1 +10	7.97	57.42	−15 + 8	14.96	48.23	−12 − 8
13	13.69	14.00	+ 9 0	7.57	6.34	− 5 +11	8.10	57.11	−18 + 4	15.29	47.97	− 5 −10
14	13.40	13.81	+ 8 + 4	7.48	6.05	−11 +10	8.23	56.80	−18 − 1	15.62	47.70	+ 4 −10
15	13.11	13.61	+ 4 + 8	7.40	5.76	−16 + 7	8.36	56.48	−15 − 6	15.95	47.44	+11 − 7
16	12.83	13.41	− 1 +10	7.33	5.47	−18 + 2	8.51	56.17	− 8 − 9	16.30	47.18	+15 − 3
17	12.56	13.20	− 7 +11	7.26	5.17	−16 − 4	8.66	55.87	0 −11	16.65	46.92	+16 + 2
18	12.29	12.99	−13 + 8	7.20	4.87	−11 − 8	8.82	55.56	+ 8 − 9	17.00	46.67	+14 + 7
19	12.03	12.78	−16 + 4	7.15	4.57	− 3 −11	8.99	55.25	+14 − 5	17.36	46.42	+ 9 + 9
20	11.78	12.56	−16 − 1	7.10	4.27	+ 5 −10	9.16	54.94	+17 − 1	17.72	46.16	+ 3 +10
21	11.53	12.34	−13 − 6	7.07	3.96	+12 − 8	9.34	54.63	+16 + 4	18.09	45.92	− 3 + 8
22	11.28	12.11	− 7 − 9	7.04	3.66	+17 − 4	9.52	54.32	+13 + 8	18.46	45.67	− 7 + 4
23	11.04	11.88	+ 1 −11	7.01	3.36	+18 + 1	9.72	54.01	+ 7 + 9	18.84	45.43	− 8 0
24	10.81	11.65	+ 8 −10	7.00	3.05	+16 + 6	9.92	53.71	+ 1 + 9	19.22	45.19	− 8 − 4
25	10.59	11.41	+14 − 6	6.99	2.74	+11 + 9	10.12	53.40	− 4 + 6	19.61	44.96	− 5 − 7
26	10.37	11.17	+18 − 1	6.99	2.43	+ 4 + 9	10.34	53.10	− 7 + 3	20.01	44.73	− 2 − 9
27	10.16	10.93	+17 + 3	6.99	2.12	− 2 + 8	10.56	52.80	− 8 − 2	20.41	44.50	+ 2 − 9
28	9.95	10.68	+13 + 7	7.01	1.81	− 6 + 5	10.79	52.51	− 7 − 5	20.81	44.28	+ 6 − 8
29	9.75	10.43	+ 8 + 9	7.03	1.50	− 8 + 1	11.03	52.21	− 5 − 8	21.22	44.06	+ 9 − 5
30	9.56	10.18	+ 1 + 9	7.06	1.19	− 9 − 3	11.27	51.91	− 1 − 9	21.63	43.84	+10 − 2
31	9.37	9.92	− 4 + 7	7.09	0.88	− 7 − 6	11.51	51.62	+ 3 − 9	22.05	43.63	+10 + 2
32	9.19	9.66	− 8 + 4				11.77	51.33	+ 6 − 7	22.47	43.41	+ 7 + 6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+87° 7′ 40″	19.957	+19.932	+87° 8′ 0″	19.995	+19.970	+87° 8′ 10″	20.015	+19.990
50	19.976	+19.951	10	20.015	+19.990	20	20.034	+20.009

$\alpha_{1947.0} = 7^h\ 16^m\ 26^s.15$ $\delta_{1947.0} = +87°\ 7'\ 54''.48$

*) Tag der doppelten unteren Kulmination: Juli 11.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nd) 51 Hev. Cephei $5^m.26$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$7^h\,16^m$	$+87°\,7'$	in 0.01^s	$0.01''$	$7^h\,16^m$	$+87°\,7'$	in 0.01^s	$0.01''$	$7^h\,16^m$	$+87°\,7'$	in 0.01^s	$0.01''$	$7^h\,17^m$	$+87°\,7'$	in 0.01^s	$0.01''$
	s	"			s	"			s	"			s	"		
1	22.47	43.41	+7	+6	36.73	38.85	−6	+10	52.91	38.43	−16	−3	6.94	42.56	0	−11
2	22.89	43.21	+3	+9	37.24	38.77	−12	+8	53.42	38.50	−11	−8	7.34	42.77	+8	−9
3	23.32	43.00	−3	+10	37.76	38.68	−16	+4	53.93	38.57	−4	−10	7.73	42.98	+14	−5
4	23.75	42.80	−9	+9	38.28	38.61	−17	0	54.44	38.64	+3	−10	8.12	43.20	+17	−1
5	24.19	42.60	−14	+7	38.79	38.54	−14	−5	54.95	38.72	+10	−8	8.50	43.42	+16	+4
6	24.63	42.41	−17	+3	39.31	38.47	−9	−9	55.45	38.81	+15	−4	8.88	43.65	+12	+8
7	25.08	42.22	−17	−2	39.84	38.41	−2	−10	55.95	38.90	+16	+1	9.25	43.88	+6	+10
8	25.53	42.03	−14	−6	40.36	38.35	+5	−9	56.45	39.00	+14	+6	9.62	44.11	0	+9
9	25.98	41.85	−7	−9	40.88	38.30	+11	−6	56.95	39.10	+9	+9	9.98	44.35	−5	+6
10	26.44	41.67	0	−10	41.40	38.25	+15	−1	57.44	39.20	+3	+10	10.33	44.59	−8	+3
11	26.90	41.49	+8	−8	41.93	38.20	+15	+3	57.93	39.32	−3	+9	10.67	44.84	−9	−2
12	27.37	41.32	+13	−4	42.45	38.17	+12	+8	58.42	39.43	−7	+5	11.01	45.09	−8	−5
13	27.83	41.15	+15	0	42.98	38.13	+7	+10	58.90	39.55	−9	+1	11.34	45.34	−4	−8
14	28.31	40.99	+14	+5	43.50	38.10	+1	+10	59.38	39.68	−9	−3	11.67	45.60	0	−9
15	28.78	40.83	+10	+9	44.03	38.08	−5	+7	59.86	39.81	−7	−7	11.99	45.86	+4	−9
16	29.26	40.68	+5	+10	44.56	38.06	−8	+4	60.33	39.95	−3	−9	12.30	46.13	+7	−7
17	29.74	40.53	−1	+9	45.09	38.05	−10	−1	60.80	40.09	+1	−10	12.61	46.40	+10	−4
18	30.22	40.38	−6	+6	45.62	38.04	−9	−5	61.27	40.23	+5	−9	12.91	46.67	+10	0
19	30.71	40.24	−9	+2	46.15	38.04	−6	−8	61.73	40.38	+9	−6	13.20	46.94	+9	+4
20	31.20	40.10	−9	−2	46.67	38.04	−1	−9	62.19	40.54	+10	−2	13.48	47.22	+5	+8
21	31.69	39.97	−7	−6	47.20	38.04	+3	−9	62.64	40.70	+10	+2	13.76	47.50	0	+10
22	32.18	39.84	−4	−9	47.72	38.05	+7	−8	63.09	40.86	+8	+6	14.03	47.78	−7	+11
23	32.68	39.71	+1	−10	48.25	38.07	+10	−5	63.54	41.03	+3	+9	14.28	48.07	−13	+9
24	33.18	39.59	+5	−9	48.77	38.09	+11	−1	63.98	41.21	−2	+11	14.53	48.36	−17	+6
25	33.68	39.47	+8	−7	49.29	38.11	+10	+3	64.42	41.39	−9	+10	14.78	48.65	−19	+1
26	34.18	39.36	+10	−3	49.81	38.14	+7	+7	64.85	41.57	−14	+8	15.01	48.95	−17	−4
27	34.69	39.25	+10	+1	50.33	38.18	+1	+9	65.28	41.76	−17	+3	15.24	49.24	−11	−9
28	35.20	39.14	+9	+5	50.85	38.22	−4	+10	65.70	41.95	−17	−2	15.46	49.54	−4	−11
29	35.70	39.04	+5	+8	51.37	38.27	−10	+9	66.12	42.15	−14	−6	15.67	49.84	+5	−10
30	36.22	38.94	0	+10	51.89	38.32	−15	+6	66.53	42.35	−7	−10	15.87	50.15	+12	−7
31	36.73	38.85	−6	+10	52.40	38.37	−17	+1	66.94	42.56	0	−11	16.07	50.45	+16	−3
32					52.91	38.43	−16	−3					16.26	50.76	+17	+2

δ	sec δ	tg δ	δ	sec δ	tg δ
+87° 7′ 30″	19.937	+19.912	+87° 7′ 50″	19.976	+19.951
40	19.957	+19.932	60	19.995	+19.970

$\alpha_{1947.0} = 7^h\ 16^m\ 26^s.15$ $\delta_{1947.0} = +87°\ 7'\ 54''.48$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Ne) 1 Hev. Draconis $4^m_.58$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
	$9^h 29^m$	+81° 33′	in 0.01s	in 0.01″	$9^h 29^m$	+81° 33′	in 0.01s	in 0.01″	$9^h 29^m$	+81° 33′	in 0.01s	in 0.01″	$9^h 29^m$	+81° 34′	in 0.01s	in 0.01″
1	46.83	40.51	0	+11	49.97	47.96	−6	+3	50.41	56.79	−4	−5	48.32	4.86	+5	−7
2	46.97	40.69	−3	+12	50.03	48.25	−5	−3	50.38	57.09	−2	−9	48.22	5.06	+6	−3
3	47.11	40.87	−5	+10	50.09	48.54	−3	−7	50.35	57.39	+1	−10	48.12	5.26	+6	+1
4	47.24	41.05	−6	+6	50.14	48.84	0	−10	50.31	57.69	+4	−9	48.01	5.45	+5	+5
5	47.37	41.24	−6	0	50.19	49.14	+3	−10	50.27	57.99	+6	−6	47.91	5.63	+3	+7
6	47.50	41.44	−4	−5	50.23	49.44	+5	−8	50.23	58.28	+6	−2	47.80	5.82	0	+8
7	47.63	41.64	−2	−9	50.28	49.74	+6	−5	50.19	58.57	+6	+2	47.69	5.99	−2	+7
8	47.75	41.85	+1	−11	50.31	50.04	+7	0	50.14	58.86	+4	+6	47.58	6.16	−3	+4
9	47.88	42.06	+4	−10	50.35	50.34	+5	+4	50.10	59.14	+2	+7	47.47	6.33	−4	+1
10	47.99	42.28	+6	−7	50.38	50.65	+3	+6	50.04	59.42	0	+7	47.35	6.49	−4	−2
11	48.11	42.50	+7	−3	50.41	50.95	+1	+7	49.99	59.70	−2	+5	47.24	6.65	−3	−5
12	48.23	42.72	+6	+1	50.44	51.26	−1	+7	49.93	59.98	−4	+3	47.12	6.80	−2	−7
13	48.34	42.95	+5	+5	{50.47 {50.49	51.56 51.87	−3 −4	+4} +1}	49.88	60.26	−4	−1	47.01	6.95	0	−8
14	48.45	43.18	+2	+6	50.51	52.18	−4	−2	49.81	60.53	−4	−4	46.89	7.09	+1	−7
15	48.56	43.42	0	+7	50.52	52.48	−3	−5	49.75	60.81	−3	−6	46.77	7.23	+3	−5
16	48.66	43.66	−2	+5	50.54	52.79	−2	−7	49.68	61.07	−1	−8	46.66	7.36	+4	−2
17	48.77	43.90	−3	+3	50.54	53.11	−1	−8	49.61	61.34	0	−8	46.54	7.48	+4	+3
18	48.87	44.15	−4	0	50.55	53.42	+1	−8	49.54	61.60	+2	−7	46.41	7.60	+3	+7
19	48.96	44.40	−4	−3	50.55	53.73	+2	−6	49.47	61.86	+3	−4	46.29	7.71	+1	+10
20	49.06	44.66	−3	−6	50.55	54.04	+3	−3	49.39	62.11	+4	0	46.17	7.82	−1	+11
21	49.15	44.92	−2	−7	50.55	54.35	+4	+1	49.31	62.36	+4	+4	46.05	7.93	−3	+10
22	49.24	45.18	0	−8	50.54	54.66	+3	+5	49.23	62.61	+2	+8	45.93	8.03	−5	+7
23	49.33	45.44	+1	−7	50.54	54.97	+1	+9	49.15	62.85	0	+10	45.80	8.12	−6	+3
24	49.41	45.71	+3	−5	50.52	55.27	−1	+11	49.07	63.09	−2	+11	45.68	8.21	−5	−3
25	49.50	45.98	+4	−1	50.51	55.58	−3	+11	48.99	63.33	−4	+9	45.55	8.29	−3	−7
26	49.57	46.25	+3	+3	50.49	55.88	−5	+8	48.90	63.56	−5	+6	45.43	8.36	−1	−10
27	49.65	46.53	+2	+7	50.47	56.19	−6	+4	48.81	63.79	−6	+1	45.30	8.43	+2	−11
28	49.72	46.81	+1	+10	50.44	56.49	−6	−1	48.72	64.01	−5	−4	45.17	8.50	+4	−9
29	49.79	47.09	−2	+12	50.41	56.79	−4	−5	48.62	64.23	−2	−8	45.04	8.56	+6	−5
30	49.85	47.38	−4	+11					48.52	64.44	0	−10	44.91	8.61	+6	−1
31	49.91	47.67	−6	+7					48.42	64.65	+3	−10	44.78	8.66	+5	+3
32	49.97	47.96	−6	+3					48.32	64.86	+5	−7				

δ	sec δ	tg δ	δ	sec δ	tg δ
+81° 33′ 40″	6.814	+6.740	+81° 34′ 0″	6.819	+6.745
50	6.816	+6.743	10	6.821	+6.747

$\alpha_{1947.0} = 9^h\ 29^m\ 41^s_.80$ $\delta_{1947.0} = +81°\ 33'\ 48''_.03$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Ne) 1 Hev. Draconis 4^m58

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$9^h 29^m$	$+81° 34'$	in 0.01^s $0.01''$	$9^h 29^m$	$+81° 34'$	in 0.01^s $0.01''$	$9^h 29^m$	$+81° 33'$	in 0.01^s $0.01''$	$9^h 29^m$	$+81° 33'$	in 0.01^s $0.01''$
1	44.78	8.66	+5 +3	40.99	7.33	−2 +6	38.39	61.44	−4 −3	37.51	52.15	+1 −8
2	44.65	8.70	+3 +6	40.88	7.20	−3 +3	38.33	61.19	−3 −6	37.52	51.82	+2 −7
3	44.52	8.74	+1 +8	40.77	7.06	−4 0	38.27	60.92	−2 −7	37.53	51.48	+3 −4
4	44.39	8.77	−1 +7	40.67	6.92	−4 −3	38.21	60.66	0 −8	37.54	51.15	+4 0
5	44.27	8.79	−3 +5	40.56	6.78	−3 −6	38.16	60.39	+1 −8	37.55	50.81	+3 +4
6	44.14	8.81	−4 +2	40.46	6.63	−2 −7	38.11	60.12	+2 −6	37.57	50.47	+2 +8
7	44.01	8.83	−4 −1	40.36	6.47	0 −8	38.06	59.84	+3 −2	37.59	50.13	+1 +11
8	43.88	8.83	−4 −4	40.26	6.31	+2 −7	38.01	59.56	+4 +2	37.61	49.79	−2 +12
9	43.76	8.83	−3 −7	40.16	6.15	+3 −4	37.97	59.28	+3 +6	37.63	49.45	−5 +11
10	43.63	8.83	−1 −8	40.06	5.98	+4 0	37.92	59.00	+1 +10	37.65	49.11	−6 +7
11	43.50	8.82	+1 −8	39.96	5.81	+3 +4	37.88	58.71	−1 +12	37.68	48.78	−7 +2
12	43.37	8.81	+2 −6	39.87	5.64	+2 +8	37.84	58.42	−4 +12	37.71	48.44	−6 −3
13	43.25	8.79	+3 −3	39.77	5.46	0 +11	37.80	58.13	−6 +10	37.74	48.09	−4 −7
14	43.12	8.76	+4 +1	39.68	5.27	−2 +12	37.77	57.83	−7 +5	*)37.77	47.75	0 −10
15	43.00	8.73	+3 +5	39.59	5.08	−4 +11	37.73	57.54	−6 0	37.81	47.41	+3 −10
16	42.87	8.69	+2 +9	39.50	4.88	−6 +8	37.70	57.24	−4 −5	37.84	47.06	+5 −7
17	42.75	8.65	0 +11	39.42	4.68	−6 +3	37.68	56.93	−2 −9	37.89	46.72	+6 −4
18	42.63	8.60	−3 +11	39.33	4.47	−5 −3	37.65	56.63	+1 −11	37.93	46.37	+6 +1
19	42.51	8.54	−5 +9	39.25	4.26	−3 −8	37.63	56.32	+4 −10	37.97	46.03	+5 +5
20	42.39	8.48	−6 +5	39.17	4.05	0 −10	37.61	56.01	+6 −7	38.01	45.68	+3 +7
21	42.27	8.42	−6 0	39.09	3.83	+3 −11	37.58	55.70	+7 −2	38.06	45.34	0 +7
22	42.15	8.35	−4 −6	39.01	3.61	+5 −9	37.57	55.38	+6 +2	38.11	44.99	−2 +6
23	42.03	8.27	−2 −9	38.94	3.39	+7 −5	37.55	55.07	+4 +5	38.16	44.65	−3 +3
24	41.91	8.19	+1 −11	38.86	3.16	+7 0	37.54	54.75	+2 +7	38.22	44.31	−4 −1
25	41.79	8.10	+4 −10	38.79	2.93	+5 +4	37.53	54.43	0 +6	38.27	43.97	−3 −4
26	41.67	8.00	+6 −7	38.72	2.69	+3 +6	37.52	54.11	−2 +5	38.33	43.62	−2 −7
27	41.56	7.90	+6 −3	38.65	2.45	+1 +7	37.51	53.78	−3 +2	38.39	43.28	−1 −8
28	41.45	7.80	+6 +1	38.58	2.20	−1 +6	37.51	53.46	−4 −2	38.46	42.94	0 −9
29	41.33	7.69	+4 +5	38.52	1.95	−3 +4	37.51	53.13	−3 −5	38.52	42.60	+2 −8
30	41.22	7.57	+2 +7	38.45	1.70	−4 +1	37.51	52.80	−2 −7	38.59	42.26	+3 −5
31	41.11	7.45	0 +7	38.39	1.44	−4 −3	37.51	52.48	−1 −8	38.66	41.91	+4 −2
32	40.99	7.33	−2 +6				37.51	52.15	+1 −8	38.73	41.57	+4 +2

δ	sec δ	tg δ	δ	sec δ	tg δ
+81° 33′ 40″	6.814	+6.740	+81° 34′ 0″	6.819	+6.745
50	6.816	+6.743	10	6.821	+6.747

$\alpha_{1947.0} = 9^h\ 29^m\ 41^s\!.80$ $\delta_{1947.0} = +81°\ 33'\ 48''\!.03$

*) Tag der doppelten unteren Kulmination: Aug. 14.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Ne) 1 Hev. Draconis $4^m.58$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	$9^h 29^m$	$+81° 33'$	in $0^s.01$	in $0''.01$	$9^h 29^m$	$+81° 33'$	in $0^s.01$	in $0''.01$	$9^h 29^m$	$+81° 33'$	in $0^s.01$	in $0''.01$	$9^h 29^m$	$+81° 33'$	in $0^s.01$	in $0''.01$
1	$38^s.73$	$41''.57$	+4	+2	$41^s.80$	$32''.11$	0	+11	$46^s.49$	$25''.08$	−6	+2	$51^s.78$	$22''.54$	−2	−9
2	38.80	41.24	+3	+6	41.93	31.83	−3	+11	46.66	24.92	−6	−3	51.96	22.54	+1	−11
3	38.88	40.90	+1	+10	42.06	31.55	−5	+9	46.83	24.76	−4	−7	52.13	22.55	+4	−9
4	38.96	40.56	−1	+11	42.20	31.28	−6	+6	47.00	24.61	−1	−10	52.31	22.56	+6	−6
5	39.04	40.23	−4	+11	42.33	31.01	−6	+1	47.18	24.47	+2	−10	52.48	22.58	+6	−2
6	39.12	39.89	−6	+9	42.47	30.74	−5	−4	47.35	24.33	+4	−8	52.65	22.61	+6	+3
7	39.21	39.56	−7	+4	42.61	30.48	−3	−8	47.52	24.19	+6	−4	52.82	22.64	+4	+6
8	39.29	39.23	−6	−1	42.75	30.21	0	−10	47.69	24.06	+6	0	53.00	22.68	+1	+8
9	39.38	38.90	−4	−5	42.89	29.95	+3	−9	47.87	23.93	+5	+4	53.17	22.72	−1	+7
10	39.47	38.57	−2	−9	43.03	29.70	+5	−6	48.04	23.81	+3	+7	53.34	22.77	−2	+5
11	39.56	38.24	+1	−10	43.17	29.44	+6	−2	48.22	23.70	+1	+8	53.51	22.82	−4	+2
12	39.65	37.92	+4	−8	43.32	29.19	+6	+2	48.39	23.59	−1	+7	53.68	22.88	−4	−2
13	39.75	37.59	+6	−5	43.46	28.95	+4	+6	48.57	23.48	−3	+4	53.85	22.95	−3	−5
14	39.85	37.27	+6	−1	43.61	28.71	+2	+8	48.75	23.39	−4	+1	54.02	23.02	−2	−8
15	39.95	36.95	+5	+3	43.76	28.48	0	+8	48.93	23.30	−4	−3	54.18	23.10	0	−9
16	40.05	36.64	+4	+7	43.92	28.25	−2	+6	49.11	23.21	−3	−6	54.35	23.18	+1	−8
17	40.16	36.32	+1	+8	44.07	28.02	−4	+3	49.29	23.12	−2	−8	54.52	23.27	+3	−7
18	40.27	36.00	−1	+7	44.22	27.79	−4	−1	49.46	23.04	0	−9	54.68	23.36	+4	−4
19	40.37	35.69	−3	+4	44.37	27.57	−4	−5	49.64	22.97	+2	−8	54.84	23.46	+4	+1
20	40.48	35.38	−4	+1	44.53	27.35	−2	−7	49.82	22.90	+3	−5	55.00	23.56	+3	+5
21	40.59	35.07	−4	−3	44.68	27.14	−1	−9	50.00	22.84	+4	−2	55.16	23.67	+2	+9
22	40.71	34.76	−3	−6	44.84	26.93	+1	−9	50.17	22.79	+4	+2	55.31	23.79	0	+11
23	40.82	34.46	−2	−8	45.00	26.73	+2	−7	50.35	22.74	+3	+6	55.47	23.91	−3	+12
24	40.94	34.16	0	−9	45.16	26.53	+4	−4	50.53	22.69	+1	+10	55.62	24.04	−5	+11
25	41.06	33.86	+2	−8	45.33	26.33	+4	−1	50.71	22.65	−1	+12	55.77	24.17	−6	+7
26	41.18	33.56	+3	−6	45.49	26.14	+4	+4	50.89	22.62	−3	+11	55.92	24.31	−7	+2
27	41.30	33.27	+4	−3	45.66	25.95	+2	+7	51.07	22.59	−5	+9	56.07	24.45	−6	−3
28	41.42	32.98	+4	+1	45.82	25.77	0	+10	51.25	22.57	−6	+5	56.22	24.60	−3	−8
29	41.55	32.68	+3	+5	45.99	25.59	−2	+11	51.43	22.56	−6	−1	56.36	24.75	0	−10
30	41.67	32.40	+2	+8	46.16	25.41	−4	+10	51.61	22.55	−4	−6	56.51	24.91	+3	−10
31	41.80	32.11	0	+11	46.32	25.24	−6	+7	51.78	22.54	−2	−9	56.65	25.08	+5	−8
32					46.49	25.08	−6	+2					56.80	25.24	+7	−4

δ	sec δ	tg δ	δ	sec δ	tg δ
+81° 33′ 20″	6.810	+6.736	+81° 33′ 40″	6.814	+6.740
30	6.812	+6.738	50	6.816	+6.743

$\alpha_{1947.0} = 9^h\ 29^m\ 41^s.80$ $\delta_{1947.0} = +81°\ 33'\ 48''.03$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

N†) 30 Hev. Camelopardalis $5^{m}.34$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		+	in			+	in			+	in			+	in	
	10^h24^m	82° 49′	$0^s.01$	$0''.01$	10^h24^m	82° 49′	$0^s.01$	$0''.01$	10^h24^m	82° 49′	$0^s.01$	$0''.01$	10^h24^m	82° 50′	$0^s.01$	$0''.01$
	s	"			s	"			s	"			s	"		
1	52.92	36.57	+1	+11	57.49	42.44	−7	+5	59.14	50.97	−5	−3	57.76	0.02	+5	−9
2	53.10	36.68	−2	+12	57.59	42.70	−6	0	59.14	51.28	−3	−7	57.67	0.27	+6	−6
3	53.28	36.79	−4	+11	57.70	42.96	−5	−5	59.15	51.60	0	−10	57.58	0.52	+7	−2
4	53.46	36.92	−6	+8	57.79	43.23	−2	−9	59.14	51.91	+3	−10	57.48	0.76	+6	+2
5	53.63	37.04	−6	+2	57.89	43.50	+2	−10	59.14	52.22	+6	−8	57.38	1.00	+4	+5
6	53.80	37.18	−6	−3	57.98	43.77	+5	−10	59.13	52.53	+7	−4	57.28	1.24	+1	+7
7	53.97	37.32	−3	−8	58.07	44.05	+6	−7	59.12	52.84	+6	0	57.18	1.47	−1	+7
8	54.14	37.46	0	−11	58.15	44.33	+7	−3	59.10	53.14	+5	+4	57.07	1.70	−3	+5
9	54.31	37.61	+3	−11	58.23	44.61	+6	+1	59.08	53.45	+3	+6	56.96	1.92	−4	+3
10	54.48	37.77	+6	−9	58.31	44.90	+5	+4	59.06	53.76	0	+7	56.85	2.14	−5	0
11	54.64	37.93	+7	−6	58.38	45.19	+2	+6	59.03	54.06	−2	+6	56.74	2.36	−5	−4
12	54.80	38.10	+7	−2	58.46	45.48	0	+6	59.00	54.37	−4	+4	56.63	2.57	−3	−6
13	54.96	38.27	+6	+2	58.52	45.77	−3	+5	58.97	54.67	−5	+1	56.51	2.78	−1	−7
14	55.12	38.44	+4	+5	58.59	46.07	−4	+3	58.93	54.97	−5	−2	56.39	2.98	0	−7
15	55.28	38.62	+1	+6	58.65	46.36	−5	0	58.90	55.27	−4	−5	56.27	3.17	+2	−6
16	55.43	38.81	−1	+6	58.71	46.66	−5	−3	58.85	55.57	−3	−7	56.15	3.37	+4	−3
17	55.58	39.00	−3	+4	58.76	46.96	−3	−5	58.81	55.86	−1	−7	56.03	3.55	+5	+1
18	55.73	39.20	−4	+2	58.81	47.26	−2	−7	58.76	56.16	+1	−7	55.91	3.73	+4	+5
19	55.87	39.40	−5	−1	58.86	47.56	0	−7	58.71	56.45	+3	−5	55.78	3.91	+2	+9
20	56.01	39.61	−4	−4	58.90	47.87	+2	−6	58.65	56.74	+4	−2	55.65	4.08	0	+11
21	56.15	39.82	−3	−6	58.94	48.18	+3	−4	58.59	57.03	+5	+2	55.52	4.25	−2	+11
22	56.29	40.04	−1	−7	58.98	48.48	+4	0	58.53	57.32	+4	+6	55.39	4.42	−5	+9
23	56.42	40.26	+1	−7	59.01	48.79	+4	+4	58.47	57.60	+2	+9	55.26	4.58	−6	+5
24	56.56	40.48	+2	−5	59.04	49.10	+3	+8	58.40	57.89	−1	+11	55.13	4.73	−6	0
25	56.68	40.71	+4	−2	59.06	49.41	+1	+10	58.34	58.16	−3	+10	54.99	4.88	−4	−5
26	56.81	40.94	+4	+1	59.09	49.72	−2	+11	58.26	58.44	−5	+7	54.86	5.02	−2	−9
27	56.93	41.18	+4	+6	{59.10 {59.12	50.03 50.34	−4 −6	+10} +6}	58.19	58.71	−6	+3	54.72	5.16	+1	−11
28	57.05	41.43	+2	+9	59.13	50.66	−6	+2	58.11	58.98	−6	−2	54.58	5.29	+4	−10
29	57.16	41.67	0	+11	59.14	50.97	−5	−3	58.03	59.24	−4	−6	54.43	5.41	+6	−7
30	57.27	41.92	−3	+11					57.94	59.50	−1	−9	54.29	5.53	+7	−4
31	57.38	42.18	−5	+9					57.85	59.76	+2	−10	54.15	5.65	+6	+1
32	57.49	42.44	−7	+5					57.76	60.02	+5	−9				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 49′ 30″	8.006	+7.944	+82° 49′ 50″	8.013	+7.950	+82° 50′ 0″	8.016	+7.953
40	8.009	+7.947	60	8.016	+7.953	10	8.019	+7.956

$\alpha_{1947.0} = 10^h\ 24^m\ 47^s.99$ $\delta_{1947.0} = +82°\ 49'\ 46''.98$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nf) 30 Hev. Camelopardalis 5^m34

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		+	in			+	in			+	in			+	in	
	10^h24^m	82° 50′	0.01^s	$0.01''$	10^h24^m	82° 50′	0.01^s	$0.01''$	10^h24^m	82° 49′	0.01^s	$0.01''$	10^h24^m	82° 49′	0.01^s	$0.01''$
	s	″			s	″			s	″			s	″		
1	54.15	5.65	+6	+1	49.56	6.41	−2	+6	45.69	62.13	−5	−1	43.39	53.62	0	−8
2	54.01	5.76	+5	+4	49.41	6.34	−3	+4	45.59	61.91	−4	−4	43.35	53.29	+2	−7
3	53.86	5.86	+2	+6	49.26	6.27	−4	+2	45.49	61.69	−3	−6	43.31	52.97	+3	−5
4	53.72	5.96	0	+7	49.12	6.19	−5	−1	45.39	61.46	−2	−7	43.28	52.64	+4	−1
5	53.57	6.05	−2	+6	48.98	6.11	−4	−4	45.29	61.23	0	−7	43.25	52.31	+4	+3
6	53.43	6.14	−4	+4	48.84	6.02	−3	−6	45.19	60.99	+2	−6	43.22	51.98	+3	+7
7	53.28	6.22	−5	+1	48.70	5.93	−1	−7	45.09	60.75	+3	−3	43.19	51.64	+1	+10
8	53.13	6.30	−5	−2	48.56	5.83	+1	−7	45.00	60.51	+4	0	43.17	51.30	−1	+12
9	52.98	6.37	−4	−5	48.42	5.72	+3	−5	44.91	60.26	+4	+5	43.15	50.96	−4	+12
10	52.83	6.43	−2	−7	48.28	5.61	+4	−2	44.82	60.01	+3	+9	43.13	50.62	−6	+9
11	52.68	6.49	0	−7	48.14	5.50	+4	+2	44.73	59.76	0	+12	43.11	50.28	−7	+5
12	52.53	6.54	+2	−6	48.00	5.38	+4	+6	44.64	59.50	−2	+12	43.10	49.93	−7	0
13	52.38	6.59	+3	−4	47.87	5.25	+2	+10	44.55	59.24	−5	+11	43.09	49.59	−5	−5
14	52.23	6.63	+4	0	47.73	5.12	−1	+12	44.47	58.97	−7	+8	43.08	49.24	−2	−9
15	52.08	6.67	+4	+4	47.60	4.99	−3	+12	44.39	58.70	−7	+3	43.07	48.89	+2	−10
16	51.93	6.70	+3	+8	47.47	4.84	−6	+9	44.31	58.43	−6	−3	43.07	48.54	+5	−9
17	51.78	6.72	+1	+11	47.34	4.70	−7	+5	44.24	58.15	−3	−8	43.07	48.19	+7	−6
18	51.63	6.74	−2	+12	47.21	4.54	−6	−1	44.17	57.87	0	−10	43.07	47.83	+7	−2
19	51.48	6.75	−4	+10	47.09	4.38	−4	−6	44.10	57.58	+3	−11	43.07	47.47	+6	+2
20	51.33	6.76	−6	+7	46.96	4.22	−2	−10	44.03	57.29	+6	−9	43.08	47.12	+4	+5
21	51.18	6.76	−6	+2	46.84	4.05	+2	−11	43.96	57.01	+7	−5	43.09	46.76	+1	+6
22	51.03	6.76	−5	−3	46.72	3.88	+5	−10	43.90	56.71	+7	−1	43.10	46.40	−1	+6
23	50.87	6.75	−3	−8	46.60	3.71	+7	−7	43.84	56.42	+5	+3	43.11	46.04	−3	+4
24	50.72	6.73	0	−11	46.48	3.53	+7	−3	43.78	56.12	+3	+6	43.13	45.68	−4	+1
25	50.58	6.71	+3	−11	46.36	3.34	+6	+1	43.72	55.82	0	+6	43.15	45.32	−5	−3
26	50.43	6.69	+6	−9	46.24	3.15	+5	+4	43.67	55.51	−2	+5	43.17	44.96	−4	−5
27	50.28	6.66	+7	−6	46.13	2.96	+2	+6	43.62	55.20	−3	+3	43.19	44.59	−2	−7
28	50.14	6.62	+7	−1	46.02	2.76	−1	+6	43.57	54.89	−4	0	*)43.22	44.23	−1	−8
29	49.99	6.57	+6	+3	45.91	2.55	−3	+5	43.52	54.57	−4	−3	43.25	43.87	+1	−8
30	49.85	6.52	+3	+6	45.80	2.34	−4	+2	43.47	54.26	−3	−6	43.28	43.50	+3	−6
31	49.70	6.47	+1	+7	45.69	2.13	−5	−1	43.43	53.94	−2	−7	43.31	43.14	+4	−3
32	49.56	6.41	−2	+6					43.39	53.62	0	−8	43.35	42.77	+5	+1

δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 49′ 40″	8.009	+7.947	+82° 50′ 0″	8.016	+7.953
50	8.013	+7.950	10	8.019	+7.956

$\alpha_{1947.0} = 10^h\ 24^m\ 47^s.99$ $\delta_{1947.0} = +82°\ 49'\ 46''.98$

*) Tag der doppelten unteren Kulmination: Aug. 28.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

N f) 30 Hev. Camelopardalis $5^{\mathrm{m}}.34$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$10^{h}24^{m}$	+82° 49′	in $0^{s}.01$	in $0''.01$	$10^{h}24^{m}$	+82° 49′	in $0^{s}.01$	in $0''.01$	$10^{h}24^{m}$	+82° 49′	in $0^{s}.01$	in $0''.01$	$10^{h}24^{m}$	+82° 49′	in $0^{s}.01$	in $0''.01$
1	43.35	42.77	+5	+1	45.59	32.04	+1	+10	50.05	22.91	−7	+5	55.79	17.92	−3	−8
2	43.39	42.41	+4	+5	45.70	31.71	−2	+11	50.23	22.67	−7	0	55.99	17.84	0	−10
3	43.43	42.04	+2	+9	45.82	31.37	−4	+10	50.40	22.43	−5	−5	56.19	17.76	+3	−10
4	43.47	41.68	0	+11	45.93	31.04	−6	+7	50.58	22.21	−2	−9	56.39	17.69	+6	−8
5	43.52	41.31	−3	+11	46.05	30.71	−7	+3	50.76	21.98	+1	−10	56.60	17.63	+7	−4
6	43.57	40.95	−5	+10	46.17	30.38	−6	−2	50.94	21.76	+4	−9	56.80	17.57	+7	0
7	43.62	40.58	−7	+7	46.30	30.06	−4	−6	51.12	21.54	+6	−6	57.01	17.52	+5	+4
8	43.67	40.21	−7	+2	46.42	29.73	−1	−9	51.30	21.33	+7	−2	57.21	17.47	+3	+6
9	43.73	39.85	−6	−3	46.55	29.41	+2	−10	51.48	21.13	+6	+2	57.42	17.43	0	+7
10	43.79	39.48	−3	−7	46.68	29.09	+5	−8	51.67	20.93	+4	+5	57.62	17.39	−2	+6
11	43.85	39.11	0	−9	46.81	28.77	+6	−5	51.85	20.73	+2	+7	57.82	17.37	−4	+3
12	43.91	38.75	+3	−9	46.95	28.46	+7	0	52.04	20.54	−1	+7	58.03	17.35	−5	0
13	43.98	38.39	+6	−7	47.08	28.15	+6	+4	52.23	20.36	−3	+5	58.23	17.33	−4	−4
14	44.05	38.03	+7	−3	47.22	27.85	+3	+6	52.42	20.18	−4	+2	58.42	17.32	−3	−6
15	44.12	37.67	+6	+1	47.37	27.54	+1	+7	52.61	20.00	−5	−1	58.62	17.32	−1	−8
16	44.19	37.31	+5	+5	47.51	27.25	−2	+6	52.81	19.83	−4	−5	58.82	17.33	0	−8
17	44.27	36.95	+2	+7	47.66	26.95	−4	+4	53.00	19.66	−3	−7	59.02	17.34	+2	−7
18	44.35	36.59	0	+7	47.81	26.65	−5	+1	53.20	19.50	−1	−8	59.22	17.35	+4	−5
19	44.43	36.23	−3	+5	47.95	26.36	−5	−3	53.39	19.35	+1	−8	59.42	17.37	+5	−1
20	44.51	35.87	−4	+2	48.10	26.07	−4	−6	53.58	19.20	+3	−6	59.61	17.40	+4	+3
21	44.60	35.52	−5	−1	48.26	25.78	−2	−8	53.78	19.05	+4	−3	59.81	17.44	+3	+7
22	44.69	35.16	−4	−4	48.41	25.50	0	−9	53.98	18.91	+5	+1	60.00	17.48	+1	+11
23	44.78	34.81	−3	−7	48.57	25.22	+2	−8	54.18	18.78	+4	+5	60.20	17.53	−1	+12
24	44.87	34.46	−1	−8	48.73	24.95	+3	−5	54.38	18.65	+3	+9	60.39	17.58	−4	+12
25	44.97	34.11	+1	−8	48.88	24.68	+4	−2	54.58	18.53	0	+11	60.58	17.64	−6	+9
26	45.07	33.76	+3	−7	49.05	24.42	+5	+2	54.78	18.42	−2	+12	60.77	17.71	−7	+5
27	45.17	33.42	+4	−4	49.21	24.16	+4	+6	54.98	18.31	−5	+10	60.96	17.78	−7	−1
28	45.27	33.07	+5	−1	49.37	23.90	+2	+9	55.18	18.20	−6	+7	61.15	17.86	−5	−6
29	45.37	32.73	+4	+3	49.54	23.65	0	+11	55.38	18.10	−7	+2	61.34	17.94	−2	−9
30	45.48	32.38	+3	+7	49.71	23.39	−3	+11	55.58	18.01	−6	−3	61.52	18.03	+2	−11
31	45.59	32.04	+1	+10	49.88	23.15	−5	+9	55.79	17.92	−3	−8	61.71	18.12	+5	−10
32					50.05	22.91	−7	+5					61.89	18.22	+7	−6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 49′ 10″	8.000	+7.937	+82° 49′ 30″	8.006	+7.944	+82° 49′ 40″	8.009	+7.947
20	8.003	+7.941	40	8.009	+7.947	50	8.013	+7.950

$\alpha_{1947.0} = 10^{h}\ 24^{m}\ 47^{s}.99$ $\delta_{1947.0} = +82°\ 49'\ 46''.98$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Ng) ε Ursae minoris 4^m40

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	16^h51^m	+ 82° 7′	in $0^s.01$	$0''.01$	16^h51^m	+ 82° 7′	in $0^s.01$	$0''.01$	16^h51^m	+ 82° 7′	in $0^s.01$	$0''.01$	16^h51^m	+ 82° 7′	in $0^s.01$	$0''.01$
1	s 12.73	" 29.39	+4	− 5	s 15.75	" 20.29	+1	+10	s 19.98	" 16.43	0	+10	s 24.78	" 18.07	−3	− 1
2	12.78	29.04	+4	0	15.88	20.07	−1	+11	20.14	16.39	−2	+10	24.92	18.22	−3	− 6
3	12.84	28.70	+3	+ 4	16.02	19.86	−2	+ 9	20.30	16.35	−3	+ 7	25.06	18.37	−1	− 9
4	12.90	28.35	+2	+ 8	16.15	19.65	−3	+ 5	20.46	16.32	−3	+ 2	25.19	18.53	0	−11
5	12.97	28.02	0	+10	16.29	19.45	−4	0	20.63	16.30	−3	− 3	25.33	18.70	+1	−10
6	13.04	27.68	−2	+10	16.43	19.25	−3	− 5	20.79	16.28	−2	− 8	25.46	18.87	+2	− 8
7	13.11	27.35	−3	+ 7	16.57	19.06	−2	− 9	20.95	16.27	−1	−10	25.59	19.05	+2	− 4
8	13.18	27.02	−4	+ 2	16.72	18.87	−1	−11	21.11	16.26	0	−11	25.72	19.23	+2	+ 1
9	13.26	26.70	−4	− 3	16.86	18.69	+1	−11	21.27	16.26	+2	−10	25.84	19.42	+1	+ 4
10	13.34	26.38	−3	− 7	17.01	18.52	+2	− 8	21.43	16.27	+2	− 6	25.97	19.62	0	+ 7
11	13.43	26.06	−1	−10	17.16	18.35	+2	− 5	21.59	16.29	+2	− 2	26.09	19.82	0	+ 9
12	13.52	25.74	0	−11	17.31	18.19	+2	0	21.75	16.31	+2	+ 2	26.21	20.02	−1	+ 9
13	13.60	25.43	+1	−10	17.46	18.03	+1	+ 4	21.91	16.34	+1	+ 6	26.33	20.23	−2	+ 7
14	13.70	25.12	+2	− 7	17.61	17.88	+1	+ 7	22.07	16.37	0	+ 8	26.45	20.44	−2	+ 4
15	13.79	24.81	+2	− 3	17.76	17.74	0	+ 9	22.23	16.41	−1	+ 9	26.57	20.66	−2	+ 1
16	13.89	24.51	+2	+ 1	17.91	17.61	−1	+ 9	22.39	16.46	−2	+ 8	26.68	20.88	−2	− 3
17	13.99	24.21	+1	+ 5	18.07	17.48	−2	+ 7	22.55	16.51	−2	+ 6	26.79	21.10	−1	− 6
18	14.09	23.92	0	+ 7	18.23	17.35	−2	+ 5	22.71	16.57	−3	+ 3	26.90	21.33	+1	− 8
19	14.19	23.63	−1	+ 9	18.38	17.24	−2	+ 2	22.86	16.64	−2	− 1	27.01	21.56	+2	− 8
20	14.30	23.35	−2	+ 8	18.54	17.13	−2	− 2	23.01	16.71	−1	− 4	27.11	21.80	+3	− 7
21	14.41	23.07	−2	+ 7	18.70	17.03	−1	− 5	23.17	16.79	0	− 7	27.21	22.04	+4	− 3
22	14.52	22.79	−2	+ 4	18.85	16.93	0	− 8	23.32	16.88	+1	− 8	27.31	22.29	+4	+ 1
23	14.63	22.52	−2	+ 1	19.01	16.84	+2	− 8	23.47	16.97	+2	− 8	27.41	22.53	+3	+ 6
24	14.74	22.25	−1	− 3	19.17	16.75	+3	− 7	23.63	17.07	+3	− 5	27.50	22.79	+1	+ 9
25	14.86	21.99	0	− 6	19.33	16.68	+4	− 4	23.78	17.18	+4	− 1	27.59	23.04	−1	+10
26	14.98	21.73	+1	− 8	19.49	16.61	+4	0	23.93	17.29	+3	+ 3	27.68	23.30	−2	+ 9
27	15.10	21.48	+2	− 8	19.65	16.54	+3	+ 5	24.07	17.40	+2	+ 7	27.77	23.56	−3	+ 6
28	15.23	21.23	+3	− 6	19.81	16.48	+2	+ 9	24.22	17.52	+1	+10	27.85	23.83	−4	+ 1
29	15.36	20.99	+4	− 2	19.98	16.43	0	+10	24.36	17.65	−1	+10	27.93	24.10	−3	− 4
30	15.49	20.75	+4	+ 2					24.50	17.78	−2	+ 8	28.01	24.37	−2	− 8
31	15.62	20.52	+3	+ 7					24.64	17.92	−3	+ 4	28.09	24.65	−1	−11
32	15.75	20.29	+1	+10					24.78	18.07	−3	− 1				

δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 7′ 10″	7.293	+7.225	+82° 7′ 20″	7.296	+7.227
20	7.296	+7.227	30	7.299	+7.230

$\alpha_{1947.0} = 16^h\ 51^m\ 19^s.33$ $\delta_{1947.0} = +82°\ 7'\ 39''.35$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Ng) ε Ursae minoris 4^m40

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	16^h51^m	+82° 7′	in 0.01^s	$0.01''$	16^h51^m	+82° 7′	in 0.01^s	$0.01''$	16^h51^m	+82° 7′	in 0.01^s	$0.01''$	16^h51^m	+82° 7′	in 0.01^s	$0.01''$
1	$28^s.09$	$24''.65$	−1	−11	$29^s.16$	$34''.05$	+2	−3	$27^s.58$	$43''.14$	−1	+8	$23^s.80$	$49''.49$	−3	+2
2	28.17	24.93	+1	−11	29.15	34.36	+2	+2	27.49	43.40	−2	+8	23.65	49.63	−2	−1
3	28.24	25.21	+2	−9	29.14	34.67	+1	+5	27.40	43.66	−2	+7	23.50	49.76	−1	−5
4	28.31	25.49	+2	−5	29.12	34.99	0	+8	27.30	43.91	−3	+4	23.35	49.89	0	−7
5	28.37	25.77	+2	−1	29.10 29.08	35.30 35.61	−1 −2	+8 +8	27.21	44.16	−2	+1	23.20	50.02	+1	−8
6	28.44	26.06	+2	+3	29.06	35.92	−2	+6	27.11	44.40	−2	−2	23.04	50.14	+3	−8
7	28.50	26.35	+1	+6	29.03	36.23	−3	+4	27.00	44.64	−1	−5	22.88	50.25	+4	−5
8	28.56	26.64	0	+8	29.00	36.53	−2	0	26.90	44.88	0	−8	22.72	50.36	+4	−1
9	28.62	26.93	−1	+9	28.96	36.84	−1	−4	26.79	45.12	+2	−8	22.56	50.47	+4	+3
10	28.67	27.23	−2	+8	28.92	37.15	0	−7	26.68	45.36	+3	−7	22.40	50.57	+3	+8
11	28.72	27.53	−2	+6	28.88	37.45	+1	−8	26.58	45.59	+4	−4	22.24	50.67	+1	+11
12	28.77	27.83	−2	+2	28.84	37.76	+3	−8	26.46	45.81	+4	+1	22.08	50.76	−1	+11
13	28.82	28.13	−2	−1	28.80	38.06	+4	−6	26.35	46.04	+4	+5	21.91	50.85	−2	+9
14	28.86	28.43	−1	−5	28.75	38.36	+4	−2	26.23	46.26	+2	+10	21.75	50.93	−3	+5
15	28.90	28.74	0	−8	28.70	38.66	+4	+3	26.11	46.47	0	+11	21.58	51.01	−3	−1
16	28.94	29.04	+2	−9	28.65	38.95	+3	+7	25.99	46.68	−1	+10	21.42	51.08	−3	−6
17	28.98	29.35	+3	−8	28.60	39.25	+1	+10	25.87	46.88	−3	+7	21.25	51.15	−2	−10
18	29.01	29.66	+4	−5	28.54	39.54	−1	+11	25.74	47.08	−4	+2	21.08	51.21	0	−12
19	29.04	29.97	+4	0	28.48	39.83	−2	+9	25.61	47.28	−4	−3	20.91	51.27	+1	−11
20	29.06	30.28	+3	+5	28.42	40.12	−4	+5	25.48	47.48	−3	−8	20.74	51.32	+2	−8
21	29.08	30.60	+2	+8	28.36	40.41	−4	0	25.35	47.67	−1	−11	20.57	51.37	+2	−4
22	29.10	30.91	0	+11	28.29	40.69	−3	−6	25.22	47.85	0	−12	20.40	51.42	+2	+1
23	29.12	31.22	−2	+10	28.22	40.97	−2	−10	25.08	48.04	+1	−10	20.23	51.46	+1	+5
24	29.14	31.54	−3	+7	28.15	41.25	−1	−12	24.95	48.22	+2	−6	20.06	51.49	0	+7
25	29.15	31.85	−4	+3	28.07	41.53	+1	−11	24.81	48.39	+2	−2	19.88	51.52	−1	+8
26	29.16	32.16	−4	−3	28.00	41.80	+2	−8	24.67	48.56	+2	+2	19.70	51.55	−2	+8
27	29.17	32.47	−3	−7	27.92	42.07	+2	−4	24.53	48.72	+1	+6	19.53	51.57	−3	+6
28	29.17	32.79	−1	−10	27.84	42.34	+2	0	24.39	48.88	0	+8	19.35	51.58	−3	+3
29	29.17	33.10	0	−11	27.75	42.61	+1	+4	24.24	49.04	−1	+8	19.17	51.59	−3	0
30	29.17	33.42	+1	−10	27.67	42.88	0	+7	24.10	49.19	−2	+7	19.00	51.59	−2	−4
31	29.16	33.73	+2	−7	27.58	43.14	−1	+8	23.95	49.34	−3	+5	18.82	51.59	−1	−6
32	29.16	34.05	+2	−3					23.80	49.49	−3	+2	18.65	51.59	+1	−8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 7′ 20″	7.296	+7.227	+82° 7′ 40″	7.301	+7.232	+82° 7′ 50″	7.304	+7.235
30	7.299	+7.230	50	7.304	+7.235	60	7.306	+7.238

$\alpha_{1947.0} = 16^h\ 51^m\ 19^s.33$ $\delta_{1947.0} = +82°\ 7'\ 39''.35$

Ng) ε Ursae minoris 4^m40

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	16^h51^m	+82° 7′	in 0.01s	0.01″	16^h51^m	+82° 7′	in 0.01s	0.01″	16^h51^m	+82° 7′	in 0.01s	0.01″	16^h51^m	+82° 7′	in 0.01s	0.01″
1	18.65	51.59	+1	− 8	13.38	49.06	+4	− 4	8.82	42.00	+1	+10	6.36	32.00	−3	+ 7
2	18.47	51.57	+2	− 8	13.21	48.89	+4	0	8.70	41.71	−1	+11	6.32	31.63	−4	+ 2
3	18.29	51.56	+3	− 6	13.04	48.73	+3	+ 4	8.58	41.41	−2	+ 9	6.28	31.27	−3	− 3
4	18.11	51.54	+4	− 3	12.88	48.56	+2	+ 8	8.47	41.11	−3	+ 6	*) 6.25	30.90	−2	− 8
5	17.94	51.51	+4	+ 2	12.72	48.38	+1	+11	8.36	40.80	−3	+ 1	6.22	30.53	−1	−11
6	17.76	51.48	+3	+ 6	12.55	48.20	−1	+11	8.25	40.49	−3	− 5	6.20	30.16	0	−11
7	17.58	51.44	+2	+10	12.39	48.01	−2	+ 8	8.14	40.18	−2	− 9	6.17	29.79	+2	− 9
8	17.40	51.40	0	+11	12.23	47.82	−3	+ 4	8.04	39.87	0	−11	6.15	29.42	+2	− 6
9	17.22	51.35	−2	+10	12.07	47.63	−3	− 2	7.93	39.56	+1	−11	6.13	29.05	+2	− 1
10	17.04	51.30	−3	+ 7	11.91	47.44	−2	− 7	7.83	39.24	+2	− 8	6.12	28.68	+2	+ 3
11	16.86	51.25	−3	+ 2	11.75	47.24	−1	−10	7.74	38.92	+3	− 4	6.11	28.31	+1	+ 6
12	16.69	51.18	−3	− 4	11.59	47.03	0	−11	7.64	38.59	+2	0	6.10	27.94	0	+ 8
13	16.51	51.12	−2	− 8	11.44	46.82	+1	−10	7.55	38.27	+1	+ 4	6.09	27.57	−2	+ 9
14	16.33	51.05	−1	−11	11.29	46.60	+2	− 7	7.46	37.93	0	+ 7	6.09	27.20	−2	+ 7
15	16.15	50.97	+1	−11	11.14	46.38	+2	− 3	7.37	37.60	−1	+ 9	6.09	26.83	−3	+ 5
16	15.98	50.89	+2	− 9	10.99	46.15	+2	+ 2	7.29	37.26	−2	+ 8	6.10	26.46	−3	+ 1
17	15.80	50.80	+2	− 5	10.84	45.92	+1	+ 6	7.21	36.93	−3	+ 7	6.11	26.09	−2	− 2
18	15.62	50.71	+2	− 1	10.69	45.69	0	+ 8	7.12	36.59	−3	+ 4	6.11	25.72	−1	− 5
19	15.44	50.61	+1	+ 4	10.55	45.45	−1	+ 9	7.05	36.25	−3	0	6.13	25.35	0	− 8
20	15.27	50.51	0	+ 7	10.40	45.21	−2	+ 8	6.97	35.90	−2	− 4	6.14	24.99	+2	− 9
21	15.09	50.40	−1	+ 8	10.26	44.96	−3	+ 6	6.90	35.56	−1	− 6	6.16	24.62	+3	− 8
22	14.92	50.29	−2	+ 8	10.12	44.71	−3	+ 2	6.83	35.21	+1	− 8	6.18	24.26	+4	− 5
23	14.74	50.17	−2	+ 7	9.98	44.46	−2	− 1	6.77	34.86	+2	− 9	6.21	23.89	+4	− 1
24	14.57	50.05	−3	+ 4	9.85	44.20	−2	− 5	6.71	34.51	+3	− 7	6.24	23.53	+4	+ 4
25	14.40	49.92	−3	+ 1	9.71	43.94	0	− 7	6.65	34.15	+4	− 3	6.27	23.17	+3	+ 8
26	14.23	49.79	−2	− 3	9.58	43.67	+1	+ 8	6.60	33.79	+4	+ 1	6.31	22.81	+1	+11
27	14.06	49.65	−1	− 6	9.45	43.40	+2	− 8	6.54	33.44	+3	+ 6	6.35	22.45	−1	+12
28	13.89	49.51	0	− 8	9.32	43.13	+3	− 6	6.49	33.08	+2	+ 9	6.39	22.09	−2	+ 9
29	13.72	49.36	+2	− 9	9.19	42.85	+4	− 2	6.44	32.72	0	+11	6.43	21.73	−3	+ 5
30	13.55	49.21	+3	− 8	9.06	42.57	+4	+ 3	6.40	32.36	−2	+10	6.48	21.38	−4	− 1
31	13.38	49.06	+4	− 4	8.94	42.29	+3	+ 7	6.36	32.00	−3	+ 7	6.53	21.03	−3	− 6
32					8.82	42.00	+1	+10					6.58	20.68	−2	−10

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 7′ 20″	7.296	+7.227	+82° 7′ 40″	7.301	+7.232	+82° 7′ 50″	7.304	+7.235
30	7.299	+7.230	50	7.304	+7.235	60	7.306	+7.238

$\alpha_{1947.0} = 16^h\ 51^m\ 19^s.33$ $\delta_{1947.0} = +82°\ 7'\ 39''.35$

*) Tag der doppelten unteren Kulmination: Dez. 4.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nh) δ Ursae minoris $4^{m}.44$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$17^h 49^m$	+86° 36′	in $0^s.01$ | $0''.01$	$17^h 49^m$	+86° 36′	in $0^s.01$ | $0''.01$	$17^h 49^m$	+86° 36′	in $0^s.01$ | $0''.01$	$17^h 49^m$	+86° 36′	in $0^s.01$ | $0''.01$
1	$0^s.28$	$30''.88$	+ 9 − 7	$4^s.21$	$20''.94$	+ 7 + 9	$12^s.40$	$15''.31$	+ 4 +10	$23^s.41$	$14''.59$	−10 + 1
2	0.30	30.53	+11 − 3	4.44	20.67	+ 2 +10	12.75	15.19	− 1 +10	23.76	14.67	−10 − 4
3	0.33	30.17	+11 + 2	4.68	20.40	− 3 +10	13.09	15.08	− 6 + 8	24.10	14.75	− 8 − 8
4	0.37	29.83	+ 9 + 6	4.92	20.14	− 8 + 7	13.44	14.97	− 9 + 4	24.44	14.84	− 4 −10
5	0.41	29.48	+ 4 + 9	5.16	19.89	−10 + 2	13.79	14.87	−10 − 1	24.77	14.94	0 −10
6	0.46	29.13	− 1 +10	5.41	19.63	−11 − 3	14.14	14.77	− 9 − 6	25.11	15.04	+ 3 − 9
7	0.52	28.79	− 6 + 9	5.67	19.39	− 9 − 7	14.49	14.69	− 7 − 9	25.44	15.14	+ 5 − 5
8	0.59	28.45	−10 + 5	5.93	19.15	− 6 −10	14.85	14.61	− 3 −11	25.77	15.26	+ 6 − 1
9	0.66	28.10	−11 0	6.20	18.91	− 2 −11	15.20	14.53	+ 1 −10	26.10	15.37	+ 6 + 3
10	0.74	27.77	−11 − 5	6.48	18.68	+ 2 − 9	15.56	14.46	+ 4 − 7	26.42	15.50	+ 4 + 6
11	0.83	27.43	− 8 − 9	6.76	18.45	+ 5 − 6	15.92	14.40	+ 6 − 4	26.74	15.63	+ 2 + 8
12	0.92	27.09	− 4 −11	7.04	18.23	+ 6 − 2	16.28	14.35	+ 6 + 1	27.06	15.76	− 1 + 9
13	1.02	26.76	0 −10	7.32	18.01	+ 6 + 2	16.64	14.30	+ 5 + 5	27.38	15.90	− 4 + 8
14	1.13	26.42	+ 3 − 8	7.61	17.80	+ 4 + 6	17.00	14.26	+ 3 + 8	27.69	16.05	− 6 + 6
15	1.24	26.09	+ 5 − 4	7.90	17.59	+ 2 + 8	17.36	14.22	0 + 9	28.00	16.20	− 6 + 2
16	1.36	25.77	+ 6 0	8.20	17.39	− 1 + 9	17.72	14.19	− 2 + 9	28.30	16.35	− 6 − 2
17	1.49	25.44	+ 5 + 4	8.51	17.20	− 3 + 8	18.08	14.17	− 5 + 7	28.60	16.51	− 4 − 6
18	1.63	25.12	+ 4 + 7	8.81	17.01	− 5 + 6	18.44	14.15	− 6 + 4	28.89	16.68	− 1 − 8
19	1.77	24.80	+ 1 + 9	9.12	16.83	− 6 + 3	18.80	14.14	− 7 + 1	29.18	16.85	+ 3 − 9
20	1.92	24.48	− 1 + 9	9.44	16.65	− 6 − 1	19.16	14.14	− 6 − 3	29.47	17.03	+ 7 − 8
21	2.08	24.17	− 4 + 8	9.76	16.47	− 5 − 5	19.52	14.14	− 3 − 7	29.75	17.22	+10 − 5
22	2.24	23.86	− 5 + 5	10.08	16.30	− 2 − 7	19.88	14.15	0 − 9	30.03	17.41	+11 − 1
23	2.41	23.55	− 6 + 2	10.40	16.14	+ 2 − 9	20.24	14.16	+ 4 − 9	30.31	17.60	+10 + 4
24	2.58	23.24	− 6 − 2	10.72	15.99	+ 6 − 9	20.60	14.18	+ 8 − 7	30.58	17.79	+ 6 + 8
25	2.76	22.94	− 4 − 6	11.05	15.84	+ 9 − 6	20.96	14.21	+10 − 4	30.85	17.99	+ 2 +10
26	2.95	22.64	0 − 8	11.38	15.69	+11 − 2	21.31	14.25	+10 + 1	31.11	18.20	− 3 +10
27	3.15	22.35	+ 4 − 9	11.72	15.56	+10 + 3	21.67	14.29	+ 9 + 5	31.37	18.41	− 7 + 8
28	3.35	22.06	+ 8 − 8	12.06	15.43	+ 8 + 7	22.02	14.33	+ 5 + 9	31.62	18.62	−10 + 3
29	3.55	21.78	+10 − 5	12.40	15.31	+ 4 +10	22.37	14.39	0 +10	31.86	18.84	−11 − 2
30	3.77	21.50	+11 0				22.72	14.45	− 4 + 9	32.10	19.07	− 9 − 6
31	3.99	21.22	+10 + 4				23.07	14.52	− 8 + 6	32.34	19.30	− 6 −10
32	4.21	20.94	+ 7 + 9				23.41	14.59	−10 + 1			

δ	sec δ	tg δ	δ	sec δ	tg δ
+86° 36′ 10″	16.875	+16.846	+86° 36′ 30″	16.903	+16.873
20	16.889	+16.860	40	16.917	+16.887

$\alpha_{1947.0} = 17^h\ 49^m\ 16^s.63$ $\delta_{1947.0} = +86^\circ\ 36'\ 37''.62$

Obere Kulmination Greenwich

Nh) δ Ursae minoris 4^m44

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	17^h49^m	+86° 36′	in $0^s.01$	in $0''.01$	17^h49^m	+86° 36′	in $0^s.01$	in $0''.01$	17^h49^m	+86° 36′	in $0^s.01$	in $0''.01$	17^h49^m	+86° 36′	in $0^s.01$	in $0''.01$
1	$32^s.34$	$19''.30$	−6	−10	$36^s.86$	$27''.84$	+6	−4	$35^s.33$	$37''.40$	+1	+8	$28^s.10$	$45''.44$	−7	+4
2	32.57	19.53	−2	−11	36.91	28.14	+6	+1	35.18	37.69	−1	+9	27.79	45.65	−7	0
3	32.80	19.77	+2	−9	36.95	28.45	+5	+4	35.02	37.99	−4	+8	27.47	45.86	−5	−3
4	33.03	20.00	+5	−6	36.99	28.76	+3	+7	34.86	38.28	−6	+6	27.15	46.06	−3	−7
5	33.24	20.25	+6	−2	37.01	29.07	+1	+9	34.69	38.57	−6	+3	26.82	46.26	+1	−9
6	33.45	20.49	+6	+2	37.03	29.38	−2	+9	34.52	38.86	−6	−1	26.49	46.45	+5	−9
7	33.66	20.74	+5	+5	37.05	29.69	−4	+8	34.34	39.14	−4	−5	26.16	46.64	+9	−7
8	33.86	20.99	+3	+8	37.06	30.00	−6	+5	34.15	39.43	−1	−8	25.82	46.83	+11	−4
9	34.05	21.25	0	+9	37.06	30.32	−6	+2	33.96	39.71	+3	−9	25.48	47.02	+12	+1
10	34.24	21.51	−3	+9	37.05	30.63	−5	−2	33.76	39.99	+7	−9	25.13	47.20	+11	+6
11	34.42	21.77	−5	+7	37.04	30.94	−3	−6	33.56	40.27	+10	−6	24.78	47.37	+7	+9
12	34.60	22.04	−6	+4	37.02	31.26	0	−9	33.36	40.54	+12	−2	24.43	47.55	+2	+11
13	34.77	22.31	−6	0	37.00	31.57	+4	−9	33.14	40.81	+12	+3	24.07	47.72	−3	+10
14	34.94	22.58	−5	−4	36.97	31.88	+8	−8	32.92	41.08	+9	+7	23.71	47.88	−7	+7
15	35.10	22.85	−2	−7	36.93	32.19	+11	−5	32.70	41.35	+5	+10	23.34	48.04	−10	+2
16	35.25	23.13	+2	−9	36.89	32.51	+12	0	32.47	41.61	−1	+11	22.98	48.19	−10	−4
17	35.40	23.41	+6	−9	36.84	32.82	+10	+5	32.23	41.88	−6	+9	22.60	48.34	−8	−8
18	35.54	23.69	+9	−7	36.78	33.13	+7	+9	31.99	42.13	−10	+5	22.23	48.49	−5	−11
19	35.67	23.97	+11	−3	36.72	33.44	+2	+11	31.74	42.39	−11	−1	21.85	48.64	−1	−11
20	35.80	24.26	+11	+2	36.65 / 36.58	33.75 / 34.06	−4 / −8	+10 / +7	31.49	42.64	−10	−6	21.47	48.78	+3	−9
21	35.92	24.55	+8	+6	36.50	34.37	−11	+2	31.23	42.90	−7	−10	21.09	48.91	+5	−5
22	36.04	24.84	+4	+10	36.41	34.68	−11	−3	30.97	43.14	−3	−11	20.71	49.04	+6	0
23	36.15	25.13	−1	+11	36.31	34.98	−9	−8	30.71	43.39	+1	−10	20.32	49.17	+5	+4
24	36.26	25.42	−6	+9	36.21	35.29	−6	−10	30.44	43.63	+4	−7	19.93	49.29	+2	+7
25	36.36	25.72	−10	+5	36.11	35.59	−2	−11	30.16	43.87	+5	−3	19.54	49.40	0	+9
26	36.45	26.02	−11	0	35.99	35.90	+2	−9	29.88	44.10	+5	+1	19.14	49.51	−3	+9
27	36.53	26.32	−10	−5	35.87	36.20	+5	−5	29.60	44.33	+4	+5	18.74	49.62	−5	+7
28	36.61	26.62	−8	−9	35.74	36.50	+6	−1	29.31	44.56	+2	+8	18.34	49.72	−7	+5
29	36.69	26.92	−4	−11	35.61	36.80	+5	+3	29.01	44.78	−1	+9	17.94	49.82	−7	+2
30	36.75	27.22	0	−10	35.47	37.10	+3	+6	28.71	45.00	−4	+8	17.53	49.91	−6	−2
31	36.81	27.53	+4	−8	35.33	37.40	+1	+8	28.41	45.22	−6	+7	17.12	50.00	−4	−6
32	36.86	27.84	+6	−4					28.10	45.44	−7	+4	16.71	50.09	−1	−8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+86° 36′ 10″	16.875	+16.846	+86° 36′ 30″	16.903	+16.873	+86° 36′ 50″	16.931	+16.901
20	16.889	+16.860	40	16.917	+16.887	60	16.945	+16.915

$\alpha_{1947.0} = 17^h\ 49^m\ 16^s.63$ $\delta_{1947.0} = +86°\ 36'\ 37''.62$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nh) δ Ursae minoris $4^m.44$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	$17^h 49^m$	+86° 36′	in $0^s.01$	in $0''.01$	$17^h 48^m$	+86° 36′	in $0^s.01$	in $0''.01$	$17^h 48^m$	+86° 36′	in $0^s.01$	in $0''.01$	$17^h 48^m$	+86° 36′	in $0^s.01$	in $0''.01$
1	$16^s.71$	$50''.09$	− 1	− 8	$63^s.89$	$50''.39$	+ 9	− 7	$51^s.44$	$46''.07$	+ 7	+ 9	$42^s.84$	$37''.97$	− 6	+ 9
2	16.30	50.17	+ 3	− 9	63.47	50.32	+11	− 3	51.08	45.86	+ 2	+11	42.64	37.65	− 9	+ 5
3	15.88	50.24	+ 7	− 8	63.04	50.25	+11	+ 2	50.73	45.64	− 3	+10	42.45	37.33	−11	− 1
4	15.47	50.31	+10	− 5	62.61	50.17	+ 9	+ 6	50.38	45.41	− 7	+ 7	42.26	37.01	−10	− 6
5	15.05	50.38	+12	− 1	62.19	50.09	+ 5	+10	50.04	45.18	−10	+ 3	42.08	36.68	− 7	− 9
6	14.63	50.44	+11	+ 3	61.76	50.00	+ 1	+11	49.70	44.95	−10	− 2	41.91	36.35	− 3	−11
7	14.21	50.49	+ 8	+ 8	61.34	49.91	− 4	+ 9	49.36	44.72	− 8	− 7	41.74	36.02	+ 1	−10
8	13.79	50.54	+ 4	+10	60.92	49.81	− 8	+ 6	49.03	44.48	− 5	−10	41.58	35.69	+ 4	− 7
9	13.36	50.59	− 1	+11	60.49	49.71	−10	+ 1	48.70	44.24	− 1	−11	41.42	35.35	+ 6	− 3
10	12.94	50.63	− 6	+ 8	60.08	49.61	− 9	− 5	48.38	43.99	+ 3	− 9	41.28	35.02	+ 6	+ 1
11	12.52	50.67	− 8	+ 4	59.66	49.50	− 7	− 9	48.07	43.74	+ 6	− 6	41.14	34.68	+ 4	+ 5
12	12.09	50.70	−10	− 2	59.24	49.38	− 3	−11	47.75	43.48	+ 6	− 1	41.00	34.34	+ 2	+ 8
13	11.66	50.73	− 9	− 6	58.83	49.26	+ 1	−10	47.45	43.22	+ 6	+ 3	40.88	34.00	− 1	+ 9
14	11.23	50.75	− 6	−10	58.42	49.14	+ 4	− 8	47.15	42.96	+ 4	+ 6	40.76	33.65	− 4	+ 8
15	10.80	50.77	− 2	−11	58.00	49.01	+ 6	− 4	46.85	42.69	+ 1	+ 9	40.65	33.31	− 6	+ 6
16	10.37	50.78	+ 2	−10	57.60	48.87	+ 6	0	46.56	42.42	− 2	+ 9	40.55	32.96	− 7	+ 3
17	9.94	50.79	+ 5	− 7	57.19	48.73	+ 5	+ 5	46.27	42.15	− 5	+ 8	40.45	32.61	− 7	0
18	9.51	50.79	+ 6	− 2	56.78	48.59	+ 2	+ 8	45.99	41.87	− 7	+ 5	40.36	32.27	− 5	− 4
19	9.08	50.79	+ 5	+ 2	56.38	48.44	− 1	+ 9	45.71	41.59	− 8	+ 2	*)40.28	31.92	− 2	− 8
20	8.65	50.79	+ 4	+ 6	55.98	48.29	− 4	+ 9	45.44	41.31	− 7	− 2	40.20	31.57	+ 1	− 9
21	8.22	50.78	+ 1	+ 9	55.58	48.13	− 6	+ 7	45.18	41.02	− 5	− 6	40.13	31.22	+ 5	− 9
22	7.78	50.76	− 2	+ 9	55.19	47.96	− 7	+ 4	44.92	40.73	− 1	− 8	40.07	30.87	+ 9	− 7
23	7.35	50.74	− 5	+ 8	54.80	47.80	− 7	0	44.66	40.43	+ 3	− 9	40.02	30.52	+12	− 4
24	6.92	50.71	− 7	+ 6	54.42	47.62	− 6	− 3	44.42	40.13	+ 7	− 9	39.97	30.17	+12	+ 1
25	6.49	50.68	− 7	+ 3	54.03	47.44	− 3	− 7	44.18	39.83	+10	− 6	39.93	29.81	+11	+ 6
26	6.05	50.64	− 7	− 1	53.66	47.26	0	− 9	43.94	39.53	+12	− 2	39.90	29.46	+ 7	+10
27	5.62	50.60	− 5	− 5	53.28	47.07	+ 4	− 9	43.71	39.22	+11	+ 3	39.87	29.11	+ 2	+11
28	5.19	50.55	− 2	− 8	52.90	46.88	+ 8	− 8	43.48	38.92	+ 9	+ 8	39.86	28.75	− 4	+10
29	4.76	50.50	+ 1	− 9	52.53	46.69	+10	− 4	43.26	38.60	+ 4	+10	39.85	28.40	− 8	+ 7
30	4.32	50.45	+ 5	− 9	52.16	46.49	+11	0	43.05	38.29	− 1	+11	39.84	28.05	−10	+ 2
31	3.89	50.39	+ 9	− 7	51.80	46.28	+10	+ 5	42.84	37.97	− 6	+ 9	39.85	27.70	−11	− 4
32					51.44	46.07	+ 7	+ 9					39.86	27.35	− 8	− 8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+86° 36′ 20″	16.889	+16.860	+86° 36′ 40″	16.917	+16.887	+86° 36′ 50″	16.931	+16.901
30	16.903	+16.873	50	16.931	+16.901	60	16.945	+16.915

$\alpha_{1947.0} = 17^h\ 49^m\ 16^s.63$ $\delta_{1947.0} = +86°\ 36'\ 37''.62$

*) Tag der doppelten unteren Kulmination: Dez. 19.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Ni) λ Ursae minoris $6^m.55$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	18^h24^m	$+89° 2'$	in $0^s.01$	in $0''.01$	18^h24^m	$+89° 2'$	in $0^s.01$	in $0''.01$	18^h24^m	$+89° 2'$	in $0^s.01$	in $0''.01$	18^h25^m	$+89° 2'$	in $0^s.01$	in $0''.01$
1	$13^s.78$	$52''.90$	+32	−9	$20^s.84$	$42''.73$	+32	+7	$45^s.62$	$36''.16$	+21	+9	$23^s.22$	$33''.97$	−39	+3
2	13.63	52.56	+43	−5	21.46	42.44	+14	+10	46.73	36.00	+2	+10	24.45	34.00	−41	−2
3	13.49	52.22	+45	0	22.11	42.15	−7	+10	47.86	35.84	−17	+9	25.68	34.04	−35	−7
4	13.38	51.87	+39	+5	22.77	41.87	−26	+8	48.99	35.69	−32	+6	26.91	34.08	−22	−9
5	13.30	51.53	+23	+9	23.46	41.59	−39	+4	50.14	35.55	−41	+1	28.13	34.13	−7	−10
6	13.24	51.19	+3	+11	24.17	41.31	−44	−1	51.29	35.41	−40	−4	29.35	34.18	+7	−9
7	13.21	50.85	−18	+9	24.90	41.03	−39	−6	52.46	35.28	−31	−8	30.56	34.24	+19	−6
8	13.21	50.51	−35	+6	25.66	40.76	−28	−9	53.63	35.15	−18	−10	31.77	34.31	+25	−2
9	13.23	50.16	−45	+2	26.43	40.49	−13	−10	54.82	35.03	−2	−10	32.97	34.38	+25	+2
10	13.28	49.82	−45	−3	27.22	40.23	+2	−9	56.01	34.92	+11	−8	34.16	34.46	+20	+6
11	13.36	49.48	−37	−7	28.04	39.97	+15	−6	57.20	34.81	+21	−4	35.35	34.54	+12	+8
12	13.46	49.14	−24	−10	28.87	39.72	+22	−3	58.41	34.71	+25	0	36.53	34.63	+1	+9
13	13.59	48.81	−8	−10	29.72	39.47	+23	+1	59.62	34.61	+23	+4	37.69	34.72	−9	+9
14	13.74	48.47	+7	−8	30.59	39.23	+20	+5	60.84	34.52	+17	+7	38.85	34.82	−18	+7
15	13 92	48.14	+18	−5	31.48	38.99	+13	+8	62.06	34.44	+7	+9	40.01	34.92	−24	+3
16	14.13	47.80	+23	−1	32.39	38.76	+3	+9	63.29	34.36	−4	+9	41.15	35.03	−25	−1
17	14.36	47.47	+22	+3	33.31	38.53	−8	+9	64.52	34.29	−14	+8	42.28	35.15	−19	−5
18	14.62	47.13	+18	+6	34.25	38.30	−17	+7	65.76	34.23	−22	+5	43.41	35.27	−8	−8
19	14.90	46.80	+10	+9	35.21	38.08	−23	+4	67.00	34.17	−25	+2	44.52	35.40	+6	−10
20	15.21	46.48	0	+9	36.18	37.86	−25	0	68.25	34.12	−24	−2	45.61	35.53	+21	−9
21	15.55	46.15	−10	+8	37.17	37.65	−21	−4	69.49	34.07	−17	−6	46.70	35.67	+34	−7
22	15.91	45.83	−18	+6	38.18	37.44	−12	−7	70.74	34.03	−4	−9	47.78	35.81	+41	−3
23	16.29	45.51	−23	+3	39.20	37.24	+2	−9	71.99	34.00	+11	−10	48.84	35.96	+39	+2
24	16.70	45.19	−23	−1	40.23	37.05	+17	−9	73.24	33.97	+25	−8	49.89	36.12	+30	+7
25	17.13	44.87	−17	−5	41.28	36.86	+31	−8	74.49	33.95	+37	−5	50.92	36.28	+13	+10
26	17.59	44.56	−6	−8	42.35	36.68	+41	−4	75.74	33.93	+41	−1	51.94	36.45	−6	+10
27	18.07	44.25	+9	−10	43.42	36.50	+42	+1	76.99	33.92	+37	+4	52.95	36.62	−25	+9
28	18.58	43.94	+25	−9	44.51	36.33	+36	+6	78.24	33.92	+25	+8	53.94	36.79	−38	+5
29	19.11	43.64	+38	−7	45.62	36.16	+21	+9	79.49	33.92	+7	+10	54.92	36.97	−43	0
30	19.66	43.33	+45	−2					80.73	33.93	−12	+10	55.88	37.15	−40	−5
31	20.24	43.03	+43	+3					81.98	33.95	−28	+7	56.83	37.34	−29	−9
32	20.84	42.73	+32	+7					83.22	33.97	−39	+3				

δ	sec δ	tg δ	δ	sec δ	tg δ
$+89° 2' 30''$	59.790	+59.781	$+89° 2' 50''$	60.138	+60.130
40	59.964	+59.955	60	60.314	+60.306

$\alpha_{1947.0} = 18^h 25^m 13^s.02$ $\delta_{1947.0} = +89° 2' 57''.40$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Ni) λ Ursae minoris 6^m55

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	18^h25^m	+ 89° 2′	in $0^s.01$ $0''.01$	18^h26^m	+ 89° 2′	in $0^s.01$ $0''.01$	18^h25^m	+ 89° 2′	in $0^s.01$ $0''.01$	18^h25^m	+ 89° 3′	in $0^s.01$ $0''.01$
1	$56^s.83$	$37''.34$	−29 − 9	$17^s.19$	$45''.05$	+19 − 5	$76^s.85$	$54''.59$	+10 + 8	$55^s.54$	$3''.43$	−24 + 5
2	57.76	37.53	−13 −10	17.52	45.34	+23 − 1	76.47	54.89	0 + 9	54.55	3.68	−26 + 1
3	58.68	37.73	+ 1 −10	17.83	45.64	+23 + 3	76.08	55.20	−10 + 8	53.53	3.93	−23 − 3
4	59.58	37.93	+15 − 7	18.12	45.93	+17 + 6	75.66	55.51	−18 + 7	52.50	4.18	−15 − 6
5	60.46	38.14	+23 − 3	18.38	46.23	+ 8 + 8	75.22	55.81	−23 + 4	51.45	4.42	− 2 − 9
6	61.33	38.35	+25 + 1	18.62	46.53	− 2 + 9	74.76	56.12	−24 0	50.38	4.66	+13 −10
7	62.18	38.56	+23 + 5	18.83	46.83	−12 + 8	74.28	56.42	−20 − 4	49.30	4.89	+29 − 9
8	63.02	38.78	+15 + 7	19.03	47.14	−19 + 6	73.78	56.73	−10 − 7	48.20	5.12	+42 − 6
9	63.83	39.00	+ 6 + 9	19.20	47.44	−24 + 2	73.25	57.03	+ 5 − 9	47.09	5.35	+48 − 1
10	64.63	39.23	− 5 + 9	19.35	47.75	−23 − 2	72.71	57.33	+21 −10	45.96	5.57	+46 + 4
11	65.41	39.46	−15 + 7	19.47	48.06	−16 − 6	72.14	57.63	+37 − 8	44.82	5.79	+34 + 8
12	66.17	39.69	−21 + 5	19.58	48.37	− 4 − 9	71.55	57.93	+47 − 4	43.66	6.01	+16 +10
13	66.91	39.93	−24 + 1	19.66	48.67	+12 −10	70.94	58.23	+48 + 1	42.48	6.22	− 6 +10
14	67.64	40.17	−21 − 3	19.71	48.98	+28 − 9	70.31	58.52	+41 + 6	41.29	6.43	−25 + 8
15	68.34	40.42	−12 − 7	19.75	49.29	+41 − 7	69.66	58.81	+25 +10	40.08	6.64	−38 + 3
16	69.02	40.67	+ 1 − 9	19.76	49.60	+47 − 2	68.98	59.10	+ 4 +11	38.86	6.84	−42 − 2
17	69.69	40.92	+17 −10	19.75	49.91	+44 + 3	68.29	59.39	−18 +10	37.63	7.04	−37 − 7
18	70.33	41.17	+32 − 8	19.71	50.23	+32 + 8	67.57	59.68	−35 + 6	36.38	7.23	−25 −10
19	70.96	41.43	+42 − 4	19.66	50.54	+13 +10	66.84	59.96	−44 + 1	35.12	7.42	− 9 −11
20	71.56	41.69	+44 0	19.58	50.85	− 9 +11	66.09	60.24	−44 − 4	33.84	7.61	+ 6 − 9
21	72.15	41.96	+36 + 5	19.48	51.16	−29 + 8	65.31	60.52	−33 − 8	32.55	7.79	+17 − 5
22	72.72	42.23	+22 + 9	19.35	51.47	−42 + 4	64.52	60.80	−20 −10	31.25	7.97	+22 − 1
23	73.26	42.50	+ 2 +11	19.20	51.79	−46 − 1	63.70	61.08	− 4 −10	29.94	8.15	+20 + 3
24	73.79	42.78	−19 +10	19.03	52.10	−42 − 6	62.87	61.35	+10 − 8	28.62	8.32	+14 + 7
25	74.29	43.05	−36 + 7	18.84	52.41	−29 − 9	62.02	61.62	+19 − 4	27.28	8.49	+ 4 + 9
26	74.77	43.33	−44 + 2	18.62	52.72	−13 −10	61.15	61.88	+21 0	25.93	8.65	− 7 + 9
27	75.23	43.61	−44 − 3	18.38	53.03	+ 2 − 9	60.26	62.15	+18 + 4	24.57	8.81	−17 + 8
28	75.66	43.90	−36 − 7	18.12	53.35	+15 − 6	59.35	62.41	+11 + 7	23.20	8.97	−24 + 6
29	76.08	44.18	−22 −10	17.84 17.53	53.66 53.97	+21 − 2 +22 + 2	58.43	62.67	+ 1 + 9	21.82	9.12	−28 + 3
30	76.47	44.47	− 6 −10	17.20	54.28	+18 + 6	57.49	62.93	− 9 + 9	20.43	9.27	−26 − 1
31	76.84	44.76	+ 9 − 8	16.85	54.59	+10 + 8	56.52	63.18	−18 + 7	19.02	9.41	−20 − 5
32	77.19	45.05	+19 − 5				55.54	63.43	−24 + 5	17.61	9.55	− 9 − 8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 2′ 30″	59.790	+59.781	+89° 2′ 50″	60.138	+60.130	+89° 3′ 0″	60.314	+60.306
40	59.964	+59.955	60	60.314	+60.306	10	60.491	+60.483

$\alpha_{1947.0} = 18^h\ 25^m\ 13^s.02$ $\delta_{1947.0} = +89°\ 2'\ 57''.40$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Ni) λ Ursae minoris 6^m55

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	18^h24^m	+89° 3′	in 0.01s	in 0.01″	18^h23^m	+89° 3′	in 0.01s	in 0.01″	18^h23^m	+89° 3′	in 0.01s	in 0.01″	18^h22^m	+89° 2′	in 0.01s	in 0.01″
1	77.61	9.55	−9	−8	92.02	11.60	+30	−8	44.85	9.11	+32	+8	68.92	62.42	−18	+10
2	76.19	9.69	+6	−9	90.45	11.60	+40	−4	43.44	8.95	+15	+10	68.00	62.14	−34	+6
3	74.76	9.82	+22	−9	88.88	11.59	+44	0	42.05	8.79	−5	+11	67.10	61.85	−43	+1
4	73.32	9.95	+36	−7	87.31	11.57	+39	+5	40.66	8.62	−24	+8	66.22	61.56	−42	−4
5	71.87	10.07	+44	−3	85.73	11.55	+27	+9	39.29	8.45	−36	+4	65.36	61.27	−32	−8
6	70.41	10.19	+46	+2	84.16	11.53	+9	+11	37.93	8.27	−41	−1	64.53	60.97	−17	−10
7	68.94	10.30	+38	+7	82.59	11.50	−11	+10	36.58	8.09	−36	−6	63.72	60.67	−1	−10
8	67.46	10.41	+23	+10	81.02	11.47	−27	+7	35.25	7.90	−25	−9	62.93	60.37	+13	−8
9	65.98	10.51	+3	+11	79.46	11.43	−37	+2	33.93	7.71	−10	−11	62.17	60.06	+22	−4
10	64.49	10.61	−17	+9	77.89	11.38	−39	−3	32.62	7.51	+6	−10	61.42	59.76	+24	0
11	62.99	10.71	−31	+5	76.33	11.33	−32	−8	31.33	7.31	+18	−6	60.70	59.45	+20	+5
12	61.48	10.80	−39	0	74.77	11.27	−19	−10	30.05	7.10	+24	−2	60.00	59.14	+11	+8
13	59.97	10.88	−38	−5	73.22	11.21	−3	−10	28.79	6.89	+24	+2	59.33	58.82	0	+9
14	58.45	10.96	−28	−9	71.67	11.15	+12	−9	27.54	6.68	+18	+6	58.68	58.51	−11	+9
15	56.93	11.04	−14	−11	70.13	11.08	+21	−5	26.30	6.46	+8	+9	58.05	58.19	−21	+7
16	55.40	11.11	+2	−10	68.59	11.00	+25	0	25.08	6.24	−3	+9	57.45	57.87	−26	+4
17	53.87	11.18	+15	−7	67.05	10.92	+22	+4	23.87	6.01	−15	+9	56.88	57.55	−28	+1
18	52.33	11.24	+22	−3	65.52	10.84	+14	+7	22.69	5.78	−23	+6	56.33	57.22	−24	−3
19	50.79	11.30	+23	+1	63.99	10.75	+3	+9	21.52	5.54	−28	+3	55.80	56.90	−15	−7
20	49.24	11.35	+18	+6	62.47	10.65	−8	+9	20.36	5.30	−27	−1	55.30	56.57	−1	−9
21	47.69	11.40	+9	+8	60.96	10.55	−19	+8	19.23	5.06	−21	−5	54.82	56.24	+15	−10
22	46.13	11.44	−2	+9	59.45	10.44	−26	+5	18.12	4.81	−10	−8	54.37	55.91	+32	−9
23	44.57	11.48	−13	+9	57.95	10.33	−29	+1	17.02	4.56	+5	−10	53.94	55.58	+44	−6
24	43.01	11.51	−23	+7	56.46	10.22	−26	−2	15.94	4.31	+21	−10	53.54	55.24	+49	−1
25	41.44	11.54	−28	+4	54.98	10.10	−18	−6	14.88	4.05	+36	−8	53.17	54.91	+46	+4
26	39.88	11.56	−28	0	53.51	9.97	−5	−9	13.84	3.79	+45	−4	52.82	54.57	+33	+9
27	38.31	11.58	−24	−4	52.04	9.84	+10	−10	12.82	3.52	+46	+1	52.50	54.23	+14	+11
28	36.74	11.59	−14	−7	50.58	9.70	+25	−9	11.81	3.25	+38	+6	*)52.20	53.89	−8	+11
29	35.17	11.60	−1	−9	49.13	9.56	+37	−6	10.83	2.98	+23	+10	51.93	53.55	−27	+8
30	33.59	11.60	+15	−10	47.70	9.41	+44	−2	9.86	2.70	+3	+11	51.68	53.21	−40	+3
31	32.02	11.60	+30	−8	46.27	9.26	+42	+3	8.92	2.42	−18	+10	51.46	52.87	−44	−1
32					44.85	9.11	+32	+8					51.27	52.53	−38	−7

δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 2′ 50″	60.138	+60.130	+89° 3′ 10″	60.491	+60.483
60	60.314	+60.306	20	60.669	+60.661

$\alpha_{1947.0} = 18^h\ 25^m\ 13^s.02$ $\delta_{1947.0} = +89°\ 2'\ 57''.40$

*) Tag der doppelten unteren Kulmination: Dez. 28.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nk) 76 Draconis $5^{m}.69$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
	$20^{h}46^{m}$	+82° 20′	in $0^{s}.01$	in $0''.01$	$20^{h}46^{m}$	+82° 19′	in $0^{s}.01$	in $0''.01$	$20^{h}46^{m}$	+82° 19′	in $0^{s}.01$	in $0''.01$	$20^{h}46^{m}$	+82° 19′	in $0^{s}.01$	in $0''.01$
1	$24^{s}.68$	$16''.82$	0	−12	$22^{s}.77$	$67''.18$	+4	+2	$23^{s}.61$	$58''.08$	+4	+5	$27^{s}.02$	$50''.92$	−2	+8
2	24.58	16.55	+1	−10	*)22.76	66.84	+4	+6	23.69	57.79	+3	+8	27.16	50.77	−3	+4
3	24.48	16.28	+3	−7	22.75	66.51	+3	+10	23.77	57.50	+1	+10	27.30	50.62	−4	−1
4	24.38	16.00	+4	−1	22.74	66.17	0	+10	23.85	57.21	−1	+9	27.44	50.48	−4	−5
5	24.28	15.72	+4	+4	22.74	65.83	−2	+9	23.93	56.92	−3	+6	27.58	50.35	−3	−7
6	24.19	15.44	+3	+8	22.74	65.49	−3	+5	24.01	56.64	−4	+2	27.73	50.23	−2	−8
7	24.10	15.15	+1	+11	22.75	65.16	−4	+1	24.10	56.36	−4	−2	27.87	50.11	0	−7
8	24.01	14.86	−1	+10	22.75	64.82	−5	−4	24.19	56.09	−4	−6	28.02	50.00	+1	−5
9	23.92	14.57	−3	+8	22.77	64.49	−4	−7	24.28	55.82	−3	−8	28.17	49.89	+2	−2
10	23.84	14.27	−4	+4	22.78	64.15	−3	−8	24.38	55.56	−1	−8	28.33	49.79	+3	+2
11	23.76	13.97	−5	−1	22.80	63.81	−1	−7	24.48	55.30	0	−6	28.48	49.70	+3	+5
12	23.68	13.67	−4	−5	22.81	63.48	+1	−5	24.58	55.04	+2	−3	28.63	49.61	+3	+8
13	23.60	13.36	−3	−7	22.84	63.14	+2	−2	24.68	54.79	+3	0	28.78	49.52	+2	+9
14	23.53	13.06	−2	−8	22.86	62.81	+3	+2	24.78	54.54	+3	+4	28.93	49.45	+1	+8
15	23.46	12.75	0	−6	22.89	62.48	+3	+5	24.89	54.29	+3	+7	29.09	49.38	−1	+6
16	23.40	12.43	+1	−4	22.92	62.15	+3	+7	25.00	54.05	+3	+8	29.24	49.31	−2	+2
17	23.33	12.12	+2	−1	22.96	61.83	+2	+8	25.11	53.82	+1	+9	29.40	49.25	−3	−2
18	23.28	11.80	+3	+3	23.00	61.50	+1	+8	25.22	53.59	0	+7	29.55	49.20	−3	−6
19	23.22	11.48	+3	+6	23.04	61.18	0	+7	25.34	53.36	−1	+5	29.71	49.16	−3	−9
20	23.17	11.16	+3	+7	23.09	60.86	−2	+4	25.45	53.14	−2	+1	29.87	49.12	−1	−11
21	23.12	10.83	+2	+8	23.13	60.54	−3	0	25.58	52.93	−3	−3	30.03	49.09	0	−10
22	23.07	10.51	0	+8	23.18	60.22	−3	−4	25.70	52.72	−3	−7	30.19	49.06	+2	−8
23	23.03	10.18	−1	+5	23.23	59.91	−3	−8	25.82	52.51	−2	−10	30.35	49.04	+3	−4
24	22.98	9.86	−2	+2	23.29	59.60	−2	−10	25.95	52.31	−1	−11	30.50	49.03	+4	+2
25	22.95	9.53	−3	−2	23.35	59.29	0	−11	26.08	52.12	+1	−9	30.66	49.02	+4	+6
26	22.91	9.20	−3	−6	23.41	58.99	+2	−9	26.21	51.93	+3	−6	30.82	49.02	+3	+10
27	22.88	8.87	−2	−10	23.47	58.68	+3	−5	26.34	51.75	+4	−2	30.98	49.02	+1	+11
28	22.85	8.53	−1	−11	23.54	58.38	+4	0	26.47	51.57	+4	+4	31.14	49.03	−1	+9
29	22.83	8.20	+1	−11	23.61	58.08	+4	+5	26.60	51.40	+3	+8	31.30	49.05	−3	+6
30	22.81	7.86	+2	−8					26.74	51.23	+2	+10	31.46	49.08	−4	+1
31	22.79	7.52	+4	−4					26.88	51.07	0	+10	31.62	49.11	−4	−3
32	22.77	7.18	+4	+2					27.02	50.92	−2	+8				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 19′ 40″	7.490	+7.423	+82° 20′ 0″	7.496	+7.429	+82° 20′ 10″	7.498	+7.431
50	7.493	+7.426	10	7.498	+7.431	20	7.501	+7.434

$\alpha_{1947.0} = 20^{h}\ 46^{m}\ 32^{s}.87$ $\delta_{1947.0} = +82°\ 20'\ 12''.37$

*) Tag der doppelten unteren Kulmination: Febr. 2.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nk) 76 Draconis 5^m69

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	20^h46^m	+82° 19′	in $0^s.01$	in 0″.01	20^h46^m	+82° 19′	in $0^s.01$	in 0″.01	20^h46^m	+82° 20′	in $0^s.01$	in 0″.01	20^h46^m	+82° 20′	in $0^s.01$	in 0″.01
1	$31^s.62$	49″.11	−4	−3	$36^s.17$	52″.93	0	−7	$39^s.11$	0″.97	+3	+2	$39^s.84$	11″.64	+1	+9
2	31.78	49.14	−4	−6	36.30	53.14	+1	−4	39.17	1.29	+3	+5	39.82	12.00	0	+7
3	31.94	49.18	−3	−8	36.42	53.35	+2	0	39.23	1.61	+3	+8	{39.80 {39.78	12.36 12.71	−1 −2	+5} +1}
4	32.10	49.23	−1	−8	36.55	53.57	+3	+3	39.29	1.94	+2	+8	39.75	13.07	−3	−3
5	32.26	49.28	+1	−6	36.67	53.79	+3	+6	39.34	2.26	+1	+8	39.72	13.43	−3	−7
6	32.41	49.34	+2	−3	36.79	54.02	+3	+8	39.40	2.59	0	+6	39.69	13.78	−2	−10
7	32.57	49.41	+3	+1	36.91	54.25	+2	+8	39.45	2.92	−2	+3	39.66	14.14	−1	−12
8	32.72	49.48	+3	+4	37.02	54.49	0	+8	39.49	3.25	−3	−1	39.62	14.49	+1	−11
9	32.88	49.56	+3	+7	37.14	54.73	−1	+5	39.54	3.59	−3	−5	39.58	14.85	+3	−8
10	33.03	49.65	+2	+8	37.25	54.98	−2	+2	39.58	3.93	−2	−9	39.54	15.20	+4	−3
11	33.18	49.74	+1	+8	37.36	55.23	−3	−3	39.62	4.27	−1	−12	39.49	15.55	+5	+2
12	33.33	49.84	0	+7	37.47	55.48	−3	−7	39.66	4.60	0	−12	39.44	15.91	+4	+7
13	33.49	49.94	−1	+4	37.58	55.74	−2	−10	39.69	4.95	+2	−10	39.39	16.26	+3	+10
14	33.64	50.04	−2	0	37.69	56.00	−1	−12	39.72	5.29	+3	−6	39.34	16.61	+1	+10
15	33.79	50.16	−3	−4	37.79	56.26	+1	−11	39.75	5.63	+5	−1	39.28	16.96	−2	+8
16	33.94	50.28	−3	−8	37.89	56.53	+3	−8	39.78	5.98	+4	+5	39.22	17.31	−4	+4
17	34.09	50.40	−2	−11	37.99	56.80	+4	−3	39.80	6.33	+3	+9	39.16	17.65	−5	−1
18	34.23	50.53	0	−12	38.08	57.08	+4	+2	39.83	6.67	+2	+11	39.10	18.00	−5	−5
19	34.38	50.67	+1	−10	38.17	57.36	+4	+7	39.84	7.03	−1	+10	39.04	18.35	−4	−8
20	34.53	50.81	+3	−6	38.26	57.65	+2	+10	39.86	7.38	−3	+7	38.97	18.69	−2	−8
21	34.67	50.96	+4	−1	38.35	57.94	0	+11	39.87	7.73	−4	+3	38.90	19.03	0	−7
22	34.82	51.11	+4	+5	38.44	58.22	−2	+9	39.88	8.08	−5	−2	38.82	19.37	+1	−4
23	34.96	51.27	+3	+9	38.52	58.52	−4	+5	39.89	8.43	−4	−6	38.75	19.71	+2	0
24	35.10	51.43	+2	+11	38.60	58.81	−5	+1	39.90	8.79	−3	−8	38.67	20.05	+3	+4
25	35.24	51.60	−1	+11	38.68	59.11	−5	−4	39.90	9.14	−1	−8	38.59	20.39	+3	+7
26	35.38	51.77	−3	+8	38.76	59.41	−4	−7	39.90	9.50	0	−5	38.51	20.72	+2	+9
27	35.51	51.95	−4	+3	38.83	59.72	−2	−8	39.90	9.85	+2	−2	38.42	21.05	+1	+9
28	35.65	52.14	−5	−1	38.90	60.03	−1	−7	39.89	10.21	+3	+1	38.33	21.38	0	+8
29	35.78	52.33	−4	−5	38.97	60.34	+1	−5	39.88	10.57	+3	+5	38.24	21.71	−1	+6
30	35.91	52.53	−3	−8	39.04	60.66	+2	−1	39.87	10.93	+3	+7	38.15	22.03	−2	+3
31	36.04	52.73	−2	−8	39.11	60.97	+3	+2	39.86	11.29	+2	+9	38.06	22.36	−3	−2
32	36.17	52.93	0	−7					39.84	11.64	+1	+9	37.96	22.68	−3	−6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 19′ 40″	7.490	+7.423	+82° 20′ 0″	7.496	+7.429	+82° 20′ 20″	7.501	+7.434
50	7.493	+7.426	10	7.498	+7.431	30	7.504	+7.437

$\alpha_{1947.0} = 20^h\ 46^m\ 32^s.87$ $\delta_{1947.0} = +82°\ 20'\ 12''.37$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Nk) 76 Draconis $5^m.69$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	20^h46^m	+82° 20′	in $0^s.01$	in $0''.01$	20^h46^m	+82° 20′	in $0^s.01$	in $0''.01$	20^h46^m	+82° 20′	in $0^s.01$	in $0''.01$	20^h46^m	+82° 20′	in $0^s.01$	in $0''.01$
1	37.96	22.68	−3	−6	34.12	30.91	0	−11	28.85	35.47	+4	+2	23.55	34.89	+1	+11
2	37.86	22.99	−2	−9	33.97	31.13	+1	−9	28.67	35.53	+4	+7	23.39	34.78	−1	+10
3	37.76	23.31	−1	−11	33.81	31.34	+3	−6	28.49	35.59	+3	+10	23.23	34.66	−3	+7
4	37.66	23.62	0	−11	33.65	31.55	+4	−1	28.31	35.64	+1	+10	23.06	34.54	−4	+2
5	37.55	23.93	+2	−9	33.50	31.75	+4	+4	28.13	35.69	−1	+9	22.91	34.41	−5	−2
6	37.44	24.24	+4	−5	33.33	31.95	+4	+8	27.95	35.73	−3	+5	22.75	34.28	−4	−6
7	37.33	24.54	+5	0	33.17	32.15	+2	+10	27.77	35.77	−4	0	22.59	34.14	−3	−8
8	37.22	24.85	+4	+5	33.01	32.34	−1	+10	27.59	35.80	−4	−4	22.43	34.00	−1	−8
9	37.11	25.15	+3	+9	32.84	32.53	−2	+7	27.41	35.82	−4	−7	22.28	33.85	0	−6
10	37.00	25.45	+1	+10	32.68	32.72	−4	+3	27.23	35.84	−2	−9	22.12	33.70	+2	−3
11	36.88	25.74	−1	+9	32.52	32.90	−4	−2	27.05	35.85	−1	−8	21.97	33.54	+3	+1
12	36.76	26.03	−3	+6	32.35	33.07	−4	−6	26.87	35.86	+1	−5	21.82	33.37	+3	+5
13	36.64	26.32	−4	+1	32.18	33.24	−3	−8	26.69	35.86	+2	−2	21.67	33.20	+3	+8
14	36.51	26.61	−4	−3	32.01	33.40	−2	−9	26.51	35.86	+3	+2	21.53	33.02	+2	+9
15	36.38	26.89	−4	−7	31.84	33.56	0	−7	26.33	35.85	+3	+6	21.38	32.84	+1	+9
16	36.25	27.17	−3	−9	31.67	33.71	+2	−4	26.15	35.83	+2	+8	21.24	32.65	0	+7
17	36.12	27.44	−1	−8	31.50	33.86	+3	0	25.97	35.81	+2	+9	21.10	32.46	−2	+4
18	35.99	27.71	+1	−5	31.33	34.01	+3	+4	25.79	35.78	0	+9	20.96	32.26	−3	0
19	35.86	27.98	+2	−2	31.16	34.15	+3	+7	25.61	35.75	−1	+6	20.82	32.06	−3	−4
20	35.72	28.25	+3	+2	30.98	34.28	+2	+9	25.44	35.71	−2	+3	20.68	31.86	−3	−8
21	35.58	28.51	+3	+6	30.81	34.41	+1	+9	25.26	35.66	−3	−1	20.55	31.64	−2	−11
22	35.44	28.77	+3	+8	30.63	34.53	0	+8	25.09	35.61	−3	−6	20.42	31.43	0	−12
23	35.30	29.02	+2	+9	30.46	34.65	−2	+5	24.91	35.56	−3	−9	20.29	31.21	+1	−11
24	35.16	29.27	0	+9	30.28	34.76	−2	+1	24.74	35.49	−1	−11	20.17	30.98	+3	−8
25	35.02	29.51	−1	+7	30.10	34.87	−3	−3	24.57	35.42	0	−11	20.05	30.75	+4	−3
26	34.87	29.75	−2	+4	29.92	34.97	−3	−7	24.40	35.35	+2	−9	19.93	30.51	+5	+3
27	34.72	29.99	−3	0	29.74	35.06	−2	−10	24.23	35.27	+4	−5	19.81	30.27	+4	+7
28	34.57	30.23	−3	−4	29.56	35.15	−1	−11	24.06	35.18	+4	0	19.69	30.03	+2	+10
29	34.42	30.46	−3	−8	29.38	35.24	+1	−10	23.89	35.09	+4	+5	19.57	29.78	0	+11
30	34.27	30.68	−2	−10	29.21	35.32	+2	−8	23.72	34.99	+3	+9	19.46	29.53	−2	+9
31	34.12	30.91	0	−11	29.03	35.40	+4	−3	23.55	34.89	+1	+11	19.35	29.27	−4	+5
32					28.85	35.47	+4	+2					19.24	29.01	−5	0

δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 20′ 20″	7.501	+7.434	+82° 20′ 30″	7.504	+7.437
30	7.504	+7.437	40	7.507	+7.440

$\alpha_{1947.0} = 20^h\ 46^m\ 32^s.87$ $\delta_{1947.0} = +82°\ 20'\ 12''.37$

Obere Kulmination Greenwich

Sa) 4 G. Octantis 5^m63

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder in		Februar AR.	Februar Dekl.	Februar ☾ Glieder in		März AR.	März Dekl.	März ☾ Glieder in		April AR.	April Dekl.	April ☾ Glieder in	
	$1^h 40^m$	−85° 2′	$0^s.01$	$0''.01$	$1^h 40^m$	−85° 2′	$0^s.01$	$0''.01$	$1^h 40^m$	−85° 2′	$0^s.01$	$0''.01$	$1^h 40^m$	−85° 2′	$0^s.01$	$0''.01$
	s	″			s	″			s	″			s	″		
1	22.65	41.41	+6	−7	14.79	38.96	−5	−9	8.76	32.23	−7	−7	4.69	21.52	−2	+10
2	22.40	41.43	+4	−10	14.55	38.79	−7	−5	8.58	31.93	−7	−2	4.61	21.14	+2	+11
3	22.15	41.44	0	−11	14.31	38.61	−7	0	8.40	31.62	−6	+3	4.54	20.77	+5	+10
4	21.89	41.44	−3	−10	14.07	38.43	−6	+5	8.23	31.31	−4	+8	4.47	20.39	+7	+8
5	21.64	41.43	−7	−7	13.83	38.24	−3	+10	8.05	31.00	0	+11	4.41	20.00	+7	+4
6	21.38	41.42	−8	−2	13.59	38.04	+1	+12	7.89	30.68	+3	+11	4.35	19.62	+6	0
7	21.13	41.40	−7	+3	13.36	37.84	+4	+11	7.72	30.36	+6	+10	4.30	19.24	+4	−4
8	20.87	41.38	−5	+8	13.13	37.63	+6	+9	7.56	30.04	+7	+6	4.25	18.85	+1	−6
9	20.61	41.35	−1	+11	12.90	37.42	+7	+5	7.40	29.71	+7	+2	4.20	18.47	−2	−7
10	20.35	41.31	+2	+12	12.67	37.21	+6	+1	7.25	29.38	+5	−2	4.16	18.08	−4	−6
11	20.09	41.27	+5	+11	12.44	36.99	+4	−3	7.10	29.05	+3	−5	4.12	17.70	−6	−5
12	19.83	41.22	+7	+8	12.21	36.76	+1	−5	6.95	28.72	0	−6	4.08	17.31	−7	−2
13	19.58	41.17	+7	+4	11.99	36.53	−1	−7	6.80	28.38	−3	−7	4.05	16.93	−6	+1
14	19.32	41.11	+5	−1	11.77	36.30	−4	−6	6.66	28.04	−5	−6	4.02	16.54	−4	+3
15	19.06	41.04	+3	−4	11.55	36.06	−6	−5	6.52	27.69	−7	−4	4.00	16.15	−2	+5
16	18.80	40.96	0	−6	11.34	35.81	−7	−3	6.39	27.35	−7	−1	3.98	15.77	+1	+7
17	18.55	40.88	−2	−7	11.13	35.56	−6	0	6.25	27.00	−5	+2	*)3.96	15.38	+4	+6
18	18.29	40.80	−5	−6	10.92	35.31	−5	+3	6.13	26.65	−4	+5	3.95	14.99	+6	+4
19	18.04	40.70	−6	−5	10.71	35.05	−3	+5	6.00	26.30	−1	+6	3.94	14.61	+7	0
20	17.78	40.60	−6	−2	10.50	34.79	0	+6	5.88	25.94	+2	+7	3.94	14.22	+7	−4
21	17.53	40.50	−6	+1	10.30	34.52	+3	+6	5.76	25.58	+5	+6	3.94	13.83	+5	−7
22	17.27	40.39	−4	+3	10.10	34.25	+6	+5	5.64	25.22	+7	+3	3.94	13.45	+2	−10
23	17.02	40.27	−2	+5	9.90	33.97	+7	+1	5.53	24.86	+7	−1	3.95	13.06	−2	−10
24	16.77	40.15	+1	+6	9.70	33.69	+7	−3	5.42	24.50	+6	−5	3.96	12.67	−5	−9
25	16.52	40.02	+4	+5	9.51	33.41	+6	−7	5.31	24.13	+4	−8	3.97	12.29	−7	−5
26	16.27	39.88	+6	+3	9.32	33.12	+3	−10	5.21	23.76	0	−10	3.99	11.91	−8	0
27	16.02	39.74	+7	0	9.13	32.83	−1	−11	5.11	23.39	−3	−10	4.01	11.53	−6	+5
28	15.77	39.60	+7	−5	8.94	32.53	−4	−10	5.02	23.02	−6	−8	4.04	11.15	−3	+9
29	15.53	39.45	+5	−8	8.76	32.23	−7	−7	4.93	22.65	−7	−3	4.07	10.77	0	+11
30	15.28	39.29	+2	−11					4.85	22.28	−7	+1	4.11	10.39	+4	+11
31	15.03	39.13	−2	−11					4.77	21.90	−5	+6	4.15	10.01	+6	+9
32	14.79	38.96	−5	−9					4.69	21.52	−2	+10				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 2′ 10″	11.557	−11.514	−85° 2′ 30″	11.570	−11.527	−85° 2′ 40″	11.576	−11.533
20	11.563	−11.520	40	11.576	−11.533	50	11.583	−11.540

$\alpha_{1947.0} = 1^h\ 40^m\ 15^s.54$ $\delta_{1947.0} = -85°\ 2'\ 17''.22$

*) Tag der doppelten unteren Kulmination: April 17.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sa) 4 G. Octantis $5^{m}63$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder	
	$1^h 40^m$	$-85° 1'$	in $0^s.01$	in $0''.01$	$1^h 40^m$	$-85° 1'$	in $0^s.01$	in $0''.01$
1	4.15	70.01	+6	+9	7.20	59.29	+3	−4
2	4.19	69.63	+7	+5	7.35	58.99	0	−6
3	4.23	69.26	+7	+1	7.51	58.69	−2	−7
4	4.28	68.88	+5	−3	7.67	58.40	−5	−6
5	4.33	68.51	+2	−5	7.83	58.11	−6	−4
6	4.39	68.14	−1	−7	8.00	57.83	−7	−2
7	4.45	67.77	−3	−7	8.17	57.55	−6	+1
8	4.52	67.41	−5	−6	8.34	57.27	−4	+4
9	4.59	67.04	−7	−4	8.52	57.00	−1	+5
10	4.66	66.68	−6	−1	8.70	56.73	+2	+6
11	4.73	66.32	−5	+2	8.88	56.46	+5	+5
12	4.81	65.95	−3	+5	9.06	56.20	+7	+3
13	4.90	65.60	0	+6	9.25	55.94	+8	−1
14	4.98	65.24	+3	+6	9.44	55.69	+7	−5
15	5.08	64.89	+6	+5	9.63	55.44	+5	−9
16	5.17	64.54	+7	+2	9.83	55.20	+1	−12
17	5.27	64.19	+8	−2	10.03	54.96	−2	−12
18	5.38	63.84	+6	−6	10.23	54.73	−6	−9
19	5.49	63.50	+3	−10	10.43	54.50	−8	−5
20	5.60	63.16	0	−11	10.63	54.27	−7	+1
21	5.71	62.82	−4	−10	10.84	54.05	−6	+6
22	5.83	62.48	−7	−7	11.04	53.84	−3	+10
23	5.95	62.15	−8	−2	11.25	53.63	+1	+12
24	6.08	61.82	−7	+3	11.47	53.42	+5	+12
25	6.21	61.49	−5	+8	11.68	53.22	+7	+9
26	6.34	61.17	−1	+11	11.90	53.03	+7	+5
27	6.47	60.85	+2	+12	12.12	52.84	+6	+1
28	6.61	60.53	+5	+10	12.34	52.65	+4	−3
29	6.75	60.22	+7	+7	12.57	52.47	+1	−5
30	6.90	59.91	+7	+3	12.79	52.29	−2	−6
31	7.05	59.60	+5	−1	13.02	52.12	−4	−6
32	7.20	59.29	+3	−4	..			

Tag	Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$1^h 40^m$	$-85° 1'$	in $0^s.01$	in $0''.01$	$1^h 40^m$	$-85° 1'$	in $0^s.01$	in $0''.01$
1	13.02	52.12	−4	−6	20.56	49.66	−5	+3
2	13.25	51.96	−6	−4	20.80	49.68	−3	+5
3	13.48	51.80	−7	−2	21.05	49.70	−1	+6
4	13.71	51.65	−6	+1	21.29	49.72	+2	+7
5	13.94	51.50	−5	+3	21.54	49.75	+5	+5
6	14.17	51.36	−3	+5	21.78	49.79	+7	+2
7	14.41	51.22	0	+6	22.02	49.83	+7	−1
8	14.65	51.09	+3	+6	22.26	49.88	+7	−6
9	14.89	50.97	+6	+4	22.50	49.93	+4	−10
10	15.13	50.85	+7	+1	22.75	49.99	+1	−12
11	15.37	50.73	+7	−4	22.98	50.06	−3	−12
12	15.61	50.62	+6	−8	23.22	50.13	−6	−10
13	15.85	50.52	+3	−11	23.46	50.21	−8	−6
14	16.10	50.42	−1	−12	23.69	50.30	−7	0
15	16.34	50.33	−4	−11	23.92	50.39	−5	+5
16	16.59	50.24	−7	−8	24.16	50.48	−2	+10
17	16.83	50.16	−8	−3	24.38	50.58	+2	+11
18	17.08	50.09	−7	+3	24.61	50.69	+5	+11
19	17.33	50.02	−4	+8	24.84	50.80	+7	+8
20	17.58	49.96	0	+12	25.06	50.92	+7	+4
21	17.82	49.90	+3	+12	25.29	51.04	+6	0
22	18.07	49.85	+6	+10	25.51	51.17	+3	−4
23	18.32	49.81	+7	+7	25.72	51.30	0	−5
24	18.57	49.77	+7	+3	25.94	51.44	−3	−6
25	18.81	49.73	+5	−1	26.15	51.59	−5	−5
26	19.06	49.71	+2	−4	26.36	51.74	−7	−3
27	19.31	49.68	−1	−6	26.57	51.90	−7	0
28	19.56	49.67	−4	−6	26.77	52.06	−6	+2
29	19.81	49.66	−6	−5	26.98	52.23	−4	+5
30	20.06	49.66	−7	−2	27.18	52.40	−2	+6
31	20.31	49.66	−6	0	27.38	52.57	+1	+7
32	20.56	49.66	−5	+3	27.57	52.75	+4	+6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 1′ 40″	11.538	−11.494	−85° 1′ 50″	11.544	−11.501	−85° 2′ 10″	11.557	−11.514
50	11.544	−11.501	60	11.550	−11.507	20	11.563	−11.520

$\alpha_{1947.0} = 1^h\ 40^m\ 15^s.54$ $\qquad$ $\delta_{1947.0} = -85°\ 2'\ 17''.22$

Sa) 4 G. Octantis $5^m\!.63$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	
	$1^h\,40^m$	$-85°\,1'$	in $0^s\!.01$	in $0''\!.01$	$1^h\,40^m$	$-85°\,2'$	in $0^s\!.01$	in $0''\!.01$
	s	″			s	″		
1	27.57	52.75	+4	+6	31.80	0.10	+7	−2
2	27.76	52.94	+6	+4	31.87	0.40	+6	−6
3	27.95	53.13	+7	0	31.95	0.69	+3	−10
4	28.14	53.32	+7	−4	32.02	0.99	0	−11
5	28.32	53.52	+5	−8	32.08	1.29	−4	−11
6	28.50	53.73	+2	−11	32.14	1.59	−6	−8
7	28.67	53.94	−1	−12	32.19	1.90	−8	−4
8	28.85	54.15	−5	−11	32.24	2.20	−7	+1
9	29.02	54.37	−7	−7	32.29	2.51	−5	+6
10	29.19	54.59	−8	−2	32.33	2.82	−1	+10
11	29.35	54.82	−6	+3	32.37	3.12	+2	+11
12	29.51	55.05	−3	+8	32.40	3.43	+5	+10
13	29.66	55.29	0	+10	32.43	3.74	+7	+7
14	29.81	55.53	+4	+11	32.45	4.05	+7	+3
15	29.96	55.77	+6	+9	32.47	4.36	+6	−1
16	30.10	56.02	+7	+6	32.48	4.68	+3	−5
17	30.24	56.27	+7	+1	{32.49 32.50	4.99 5.31	0 −3	−6} −7}
18	30.38	56.52	+5	−3	32.50	5.62	−6	−5
19	30.51	56.78	+2	−5	32.49	5.94	−7	−3
20	30.64	57.04	−2	−6	32.48	6.25	−7	0
21	30.77	57.30	−4	−6	32.47	6.56	−6	+3
22	30.89	57.57	−6	−4	32.45	6.88	−3	+6
23	31.01	57.84	−7	−1	32.42	7.19	−1	+7
24	31.12	58.12	−6	+1	32.39	7.49	+2	+7
25	31.23	58.39	−5	+4	32.36	7.80	+5	+6
26	31.33	58.68	−2	+6	32.32	8.11	+7	+3
27	31.43	58.96	0	+7	32.28	8.42	+7	−1
28	31.53	59.24	+3	+7	32.23	8.73	+7	−5
29	31.62	59.53	+6	+5	32.18	9.04	+4	−8
30	31.71	59.81	+7	+2	32.12	9.34	+1	−11
31	31.80	60.10	+7	−2	32.06	9.64	−2	−11
32					31.99	9.94	−6	−10

Tag	November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	$1^h\,40^m$	$-85°\,2'$	in $0^s\!.01$	in $0''\!.01$	$1^h\,40^m$	$-85°\,2'$	in $0^s\!.01$	in $0''\!.01$
	s	″			s	″		
1	31.99	9.94	−6	−10	27.99	17.64	−7	+3
2	31.92	10.24	−7	−5	27.79	17.84	−4	+8
3	31.84	10.54	−8	0	27.60	18.03	0	+11
4	31.76	10.84	−6	+5	27.40	18.21	+3	+11
5	31.67	11.13	−3	+9	27.20	18.39	+6	+10
6	31.58	11.42	+1	+11	27.00	18.57	+7	+6
7	31.48	11.72	+4	+10	26.79	18.74	+7	+2
8	31.39	12.00	+7	+8	26.58	18.90	+5	−2
9	31.28	12.29	+7	+4	26.37	19.06	+2	−5
10	31.17	12.57	+6	0	26.15	19.21	−1	−6
11	31.06	12.85	+4	−4	25.94	19.35	−4	−6
12	30.95	13.12	+1	−6	25.72	19.49	−6	−5
13	30.82	13.39	−2	−7	25.49	19.63	−7	−2
14	30.70	13.66	−5	−6	25.27	19.76	−7	+1
15	30.57	13.92	−6	−4	25.04	19.88	−5	+4
16	30.44	14.18	−7	−1	24.81	20.00	−3	+6
17	30.30	14.44	−6	+2	24.58	20.12	0	+7
18	30.16	14.70	−5	+5	24.35	20.22	+3	+7
19	30.02	14.95	−2	+6	24.11	20.32	+5	+5
20	29.87	15.20	+1	+7	23.87	20.42	+7	+2
21	29.72	15.44	+4	+6	23.63	20.51	+8	−2
22	29.56	15.68	+6	+4	23.39	20.59	+7	−6
23	29.40	15.91	+7	+1	23.15	20.66	+4	−10
24	29.23	16.14	+7	−3	22.91	20.73	+1	−12
25	29.06	16.37	+6	−8	22.66	20.79	−3	−12
26	28.89	16.59	+2	−11	22.41	20.85	−6	−10
27	28.72	16.81	−1	−12	22.17	20.90	−8	−5
28	28.54	17.03	−5	−11	21.92	20.95	−8	0
29	28.36	17.24	−7	−7	21.67	20.99	−6	+6
30	28.17	17.44	−8	−2	21.42	21.02	−2	+10
31	27.99	17.64	−7	+3	21.17	21.04	+2	+12
32					20.92	21.06	+5	+11

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 1′ 50″	11.544	−11.501	−85° 2′ 0″	11.550	−11.507	−85° 2′ 20″	11.563	−11.520
60	11.550	−11.507	10	11.557	−11.514	30	11.570	−11.527

$\alpha_{1947.0} = 1^h\ 40^m\ 15^s\!.54$ $\delta_{1947.0} = -85°\ 2'\ 17''\!.22$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

8b) ξ Mensae $5^{m}.85$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder in $0^{s}.01$	Januar ☾ Glieder in $0''.01$	Februar AR.	Februar Dekl.	Februar ☾ Glieder in $0^{s}.01$	Februar ☾ Glieder in $0''.01$	März AR.	März Dekl.	März ☾ Glieder in $0^{s}.01$	März ☾ Glieder in $0''.01$	April AR.	April Dekl.	April ☾ Glieder in $0^{s}.01$	April ☾ Glieder in $0''.01$
	$5^{h}\,4^{m}$	$-82°\,32'$			$5^{h}\,4^{m}$	$-82°\,32'$			$5^{h}\,4^{m}$	$-82°\,32'$			$5^{h}\,4^{m}$	$-82°\,32'$		
1	$61^{s}.70$	$47''.85$	+4	+3	$57^{s}.49$	$54''.78$	+1	−10	$52^{s}.33$	$56''.99$	0	−10	$46^{s}.43$	$54''.58$	−3	+3
2	61.61	48.13	+4	−1	57.32	54.93	−1	−10	52.14	56.99	−2	−9	46.25	54.42	−2	+8
3	61.50	48.41	+3	−6	57.15	55.08	−3	−8	51.94	56.99	−3	−5	46.07	54.26	−1	+10
4	61.40	48.69	+2	−9	56.98	55.22	−4	−3	51.75	56.98	−4	0	45.90	54.10	0	+11
5	61.29	48.96	0	−11	56.81	55.35	−4	+2	51.55	56.96	−3	+5	45.72	53.92	+1	+9
6	61.18	49.23	−2	−9	56.64	55.48	−3	+7	51.36	56.94	−2	+9	45.55	53.75	+2	+6
7	61.07	49.50	−4	−5	56.46	55.61	−2	+10	51.16	56.92	−1	+11	45.38	53.57	+3	+2
8	60.96	49.76	−4	0	56.28	55.73	0	+11	50.97	56.88	+1	+11	45.21	53.38	+2	−2
9	60.84	50.02	−4	+5	56.10	55.84	+1	+10	50.77	56.85	+2	+8	45.04	53.19	+1	−6
10	60.72	50.28	−3	+9	55.92	55.95	+2	+7	50.58	56.80	+2	+5	44.88	52.99	0	−8
11	60.60	50.53	−1	+11	55.74	56.06	+2	+3	50.38	56.75	+2	0	44.71	52.79	−1	−9
12	60.47	50.78	0	+11	55.56	56.16	+2	−1	50.18	56.70	+2	−4	44.55	52.59	−2	−8
13	60.35	51.02	+1	+9	55.37	56.25	+1	−5	49.99	56.64	+1	−7	44.39	52.39	−2	−6
14	60.22	51.26	+2	+5	55.19	56.34	0	−8	49.79	56.58	0	−9	44.23	52.18	−3	−3
15	60.08	51.49	+2	+1	55.00	56.42	−1	−9	49.60	56.51	−1	−9	44.07	51.97	−2	+1
16	59.95	51.72	+2	−3	54.82	56.50	−2	−8	49.41	56.43	−2	−8	43.91	51.75	−1	+5
17	59.81	51.95	+1	−6	54.63	56.57	−2	−6	49.21	56.36	−3	−5	43.75	51.52	0	+8
18	59.67	52.17	0	−8	54.44	56.63	−3	−4	49.02	56.27	−3	−1	43.60	51.30	+1	+9
19	59.53	52.39	−1	−9	54.25	56.69	−2	0	48.84	56.18	−2	+2	43.45	51.07	+3	+8
20	59.38	52.60	−2	−8	54.06	56.75	−2	+4	48.65	56.09	−1	+6	43.30	50.83	+4	+5
21	59.23	52.81	−2	−6	53.87	56.80	−1	+7	48.46	55.99	0	+8	43.15	50.59	+4	+1
22	59.08	53.01	−3	−3	53.69	56.84	+1	+8	48.27	55.89	+2	+9	43.00	50.35	+3	−3
23	58.93	53.21	−2	+1	53.50	56.88	+2	+8	48.08	55.78	+3	+7	42.85	50.10	+2	−8
24	58.78	53.41	−1	+5	53.30	56.91	+3	+6	47.89	55.67	+4	+4	42.71	49.86	0	−10
25	58.62	53.60	0	+7	53.11	56.94	+4	+2	47.71	55.55	+4	−1	42.57	49.60	−1	−10
26	58.47	53.78	+2	+8	52.92	56.96	+4	−2	47.52	55.42	+3	−5	42.43	49.35	−3	−8
27	58.31	53.96	+3	+8	52.72	56.98	+3	−7	47.34	55.29	+2	−9	42.30	49.09	−4	−4
28	58.15	54.14	+4	+5	52.53	56.99	+1	−10	47.15	55.16	0	−10	42.17	48.83	−4	+1
29	57.98	54.31	+4	+1	52.33	56.99	0	−10	46.97	55.02	−2	−9	42.04	48.56	−3	+6
30	57.82	54.47	+4	−4					46.79	54.88	−3	−6	41.91	48.29	−2	+10
31	57.66	54.63	+2	−8					46.61	54.73	−4	−2	41.78	48.02	0	+11
32	57.49	54.78	+1	−10					46.43	54.58	−3	+3				

δ	sec δ	tg δ	δ	sec δ	tg δ
$-82°\,32'\,40''$	7.707	−7.642	$-82°\,32'\,50''$	7.710	−7.644
50	7.710	−7.644	60	7.712	−7.647

$\alpha_{1947.0} = 5^{h}\;4^{m}\;49^{s}.67$ $\qquad$ $\delta_{1947.0} = -82°\;32'\;40''.69$

Obere Kulmination Greenwich

8b) ξ Mensae 5^m85

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder	
	$5^h\,4^m$	$-82°\,32'$	in $0^s.01$	in $0''.01$	$5^h\,4^m$	$-82°\,32'$	in $0^s.01$	in $0''.01$
1	$41^s.78$	$48''.02$	0	+11	$39^s.06$	$38''.31$	+2	+1
2	41.65	47.75	+1	+10	39.01	37.97	+2	−3
3	41.53	47.47	+2	+7	38.97	37.63	+1	−6
4	41.41	47.19	+2	+3	38.93	37.29	0	−8
5	41.29	46.90	+2	−1	38.90	36.95	−1	−9
6	41.18	46.62	+2	−6	38.86	36.60	−2	−8
7	41.06	46.32	+1	−7	38.84	36.25	−2	−5
8	40.95	46.03	0	−9	*)38.81	35.91	−3	−2
9	40.84	45.73	−1	−9	38.79	35.56	−2	+2
10	40.74	45.43	−2	−7	38.77	35.21	−1	+5
11	40.63	45.13	−3	−4	38.74	34.87	0	+8
12	40.53	44.83	−2	−1	38.73	34.52	+2	+9
13	40.43	44.52	−2	+3	38.71	34.17	+3	+8
14	40.34	44.21	−1	+6	38.70	33.83	+4	+5
15	40.24	43.90	+1	+8	38.69	33.48	+4	0
16	40.15	43.58	+2	+9	38.69	33.13	+4	−5
17	40.06	43.27	+4	+7	38.69	32.79	+2	−9
18	39.97	42.95	+4	+3	38.69	32.44	+1	−11
19	39.89	42.63	+4	−2	38.70	32.10	−1	−10
20	39.81	42.30	+3	−6	38.71	31.76	−3	−7
21	39.73	41.98	+1	−10	38.71	31.41	−4	−3
22	39.65	41.65	−1	−11	38.73	31.07	−4	+3
23	39.58	41.33	−2	−9	38.74	30.73	−3	+8
24	39.51	41.00	−4	−6	38.76	30.39	−2	+11
25	39.44	40.67	−4	−1	38.78	30.05	0	+11
26	39.38	40.34	−4	+5	38.81	29.71	+1	+10
27	39.32	40.00	−3	+9	38.84	29.37	+2	+6
28	39.26	39.67	−1	+11	38.87	29.04	+2	+2
29	39.21	39.33	0	+11	38.91	28.70	+2	−2
30	39.16	38.99	+2	+9	38.95	28.37	+1	−5
31	39.11	38.65	+2	+5	38.99	28.03	0	−8
32	39.06	38.31	+2	+1				

Tag	Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$5^h\,4^m$	$-82°\,32'$	in $0^s.01$	in $0''.01$	$5^h\,4^m$	$-82°\,32'$	in $0^s.01$	in $0''.01$
1	$38^s.99$	$28''.03$	0	−8	$41^s.48$	$18''.97$	−3	−4
2	39.03	27.70	−1	−9	41.60	18.73	−3	−1
3	39.07	27.37	−2	−8	41.72	18.50	−2	+3
4	39.12	27.05	−2	−6	41.84	18.27	−1	+6
5	39.17	26.72	−3	−3	41.97	18.05	0	+8
6	39.22	26.40	−2	0	42.10	17.84	+2	+9
7	39.28	26.08	−2	+4	42.23	17.63	+3	+7
8	39.34	25.76	0	+7	42.36	17.42	+4	+4
9	39.40	25.44	+1	+8	42.49	17.22	+4	−1
10	39.46	25.12	+3	+8	42.62	17.02	+4	−5
11	39.53	24.81	+4	+6	42.76	16.82	+2	−9
12	39.60	24.49	+4	+2	42.89	16.63	+1	−11
13	39.67	24.19	+4	−3	43.03	16.45	−1	−11
14	39.74	23.88	+3	−7	43.17	16.27	−3	−7
15	39.82	23.58	+2	−11	43.31	16.09	−4	−3
16	39.90	23.28	0	−11	43.46	15.92	−4	+3
17	39.98	22.99	−2	−9	43.60	15.76	−3	+8
18	40.06	22.70	−3	−5	43.75	15.60	−1	+11
19	40.15	22.41	−4	0	43.90	15.45	0	+12
20	40.24	22.12	−4	+5	44.05	15.30	+1	+10
21	40.33	21.84	−2	+9	44.20	15.15	+2	+6
22	40.42	21.55	−1	+12	44.35	15.02	+2	+1
23	40.52	21.28	0	+11	44.50	14.89	+2	−3
24	40.62	21.01	+2	+8	44.65	14.76	+1	−6
25	40.72	20.74	+2	+4	44.81	14.64	0	−8
26	40.82	20.47	+2	0	44.97	14.53	−1	−9
27	40.93	20.22	+1	−4	45.12	14.42	−2	−7
28	41.04	19.96	0	−7	45.28	14.32	−3	−5
29	41.15	19.71	−1	−8	45.44	14.22	−3	−2
30	41.26	19.46	−2	−8	45.59	14.13	−2	+2
31	41.37	19.21	−2	−7	45.75	14.04	−1	+5
32	41.48	18.97	−3	−4	45.91	13.96	0	+8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−82° 32′ 10″	7.698	−7.633	−82° 32′ 30″	7.704	−7.639	−82° 32′ 40″	7.707	−7.642
20	7.701	−7.636	40	7.707	−7.642	50	7.710	−7.644

$\alpha_{1947.0} = 5^h\,4^m\,49^s.67$ $\delta_{1947.0} = -82°\,32'\,40''.69$

*) Tag der doppelten unteren Kulmination: Juni 8.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

8b) ξ Mensae $5^m.85$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	$5^h\ 4^m$	$-82°\ 32'$	in $0^s.01$	in $0''.01$	$5^h\ 4^m$	$-82°\ 32'$	in $0^s.01$	in $0''.01$	$5^h\ 4^m$	$-82°\ 32'$	in $0^s.01$	in $0''.01$	$5^h\ 4^m$	$-82°\ 32'$	in $0^s.01$	in $0''.01$
1	45.91	13.96	0	+ 8	50.78	14.52	+3	+ 7	54.77	20.58	+2	− 8	56.33	29.90	−2	− 9
2	46.07	13.89	+1	+ 8	50.94	14.63	+4	+ 3	54.87	20.85	0	−11	56.34	30.23	−3	− 5
3	46.23	13.83	+3	+ 8	51.09	14.75	+4	− 2	54.96	21.13	−1	−11	56.33	30.57	−4	0
4	46.40	13.77	+4	+ 5	51.24	14.88	+3	− 6	55.05	21.41	−3	− 8	56.33	30.90	−3	+ 5
5	46.56	13.71	+4	+ 1	51.39	15.01	+2	−10	55.14	21.69	−3	− 4	56.32	31.24	−2	+ 9
6	46.72	13.67	+4	− 3	51.54	15.15	0	−11	55.22	21.98	−4	+ 2	56.31	31.58	−1	+11
7	46.89	13.63	+3	− 8	51.68	15.29	−2	−10	55.30	22.27	−3	+ 7	56.30	31.92	+1	+11
8	47.05	13.59	+1	−11	51.83	15.44	−3	− 7	55.38	22.56	−2	+10	{56.28 {56.26	32.25 32.59	+2 +2	+ 8} + 4}
9	47.22	13.56	−1	−11	51.97	15.59	−4	− 2	55.46	22.85	0	+11	56.24	32.92	+2	0
10	47.38	13.54	−2	− 9	52.12	15.75	−3	+ 4	55.53	23.15	+1	+10	56.21	33.25	+1	− 5
11	47.54	13.52	−3	− 5	52.26	15.92	−2	+ 8	55.60	23.45	+2	+ 7	56.18	33.59	0	− 7
12	47.71	13.51	−3	+ 1	52.40	16.09	−1	+11	55.67	23.75	+3	+ 2	56.15	33.92	−1	− 9
13	47.87	13.51	−3	+ 6	52.54	16.26	+1	+11	55.73	24.06	+2	− 2	56.11	34.24	−2	− 8
14	48.03	13.51	−2	+10	52.67	16.45	+2	+ 9	55.79	24.37	+1	− 6	56.07	34.57	−3	− 6
15	48.20	13.52	0	+11	52.81	16.63	+2	+ 5	55.85	24.68	0	− 8	56.03	34.90	−3	− 4
16	48.36	13.54	+1	+11	52.94	16.83	+2	+ 1	55.90	25.00	−1	− 9	55.98	35.23	−3	0
17	48.53	13.56	+2	+ 8	53.07	17.03	+2	− 4	55.95	25.32	−2	− 8	55.94	35.56	−2	+ 3
18	48.70	13.59	+2	+ 3	53.20	17.23	+1	− 7	56.00	25.63	−3	− 6	55.88	35.88	−1	+ 7
19	48.86	13.62	+2	− 1	53.33	17.44	−1	− 9	56.05	25.95	−3	− 2	55.83	36.20	+1	+ 8
20	49.03	13.66	+1	− 5	53.46	17.65	−2	− 9	56.09	26.27	−3	+ 1	55.77	36.52	+2	+ 9
21	49.19	13.70	0	− 8	53.58	17.87	−2	− 7	56.13	26.60	−2	+ 5	55.71	36.84	+3	+ 7
22	49.35	13.76	−1	− 9	53.70	18.10	−3	− 4	56.16	26.92	0	+ 8	55.64	37.15	+4	+ 4
23	49.52	13.82	−2	− 8	53.82	18.32	−3	− 1	56.19	27.25	+1	+ 9	55.57	37.47	+5	− 1
24	49.68	13.88	−3	− 6	53.93	18.56	−2	+ 3	56.22	27.58	+3	+ 8	55.50	37.77	+4	− 6
25	49.83	13.95	−3	− 3	54.04	18.80	−1	+ 6	56.25	27.91	+4	+ 6	55.42	38.08	+2	−10
26	49.99	14.03	−3	+ 1	54.15	19.04	0	+ 8	56.27	28.24	+4	+ 2	55.34	38.39	0	−12
27	50.15	14.12	−2	+ 4	54.26	19.29	+2	+ 9	56.29	28.57	+4	− 3	55.26	38.69	−1	−11
28	50.31	14.21	−1	+ 7	54.37	19.54	+3	+ 8	56.31	28.90	+3	− 7	55.18	38.99	−3	− 8
29	50.47	14.31	+1	+ 9	54.47	19.79	+4	+ 4	56.32	29.23	+1	−10	55.09	39.29	−4	− 3
30	50.63	14.41	+2	+ 8	54.58	20.05	+4	0	56.33	29.56	0	−11	55.00	39.58	−4	+ 3
31	50.78	14.52	+3	+ 7	54.68	20.31	+4	− 4	56.33	29.90	−2	− 9	54.91	39.87	−3	+ 8
32					54.77	20.58	+2	− 8					54.81	40.16	−1	+11

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−82° 32′ 10″	7.698	−7.633	−82° 32′ 30″	7.704	−7.639	−82° 32′ 40″	7.707	−7.642
20	7.701	−7.636	40	7.707	−7.642	50	7.710	−7.644

$\alpha_{1947.0} = 5^h\ 4^m\ 49^s.67$ $\delta_{1947.0} = -82°\ 32'\ 40''.69$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sc) ζ Octantis 5^{m}38

Tag	Januar				Februar				März				April			
	AR.	Dekl.	ℂ Glieder		AR.	Dekl.	ℂ Glieder		AR.	Dekl.	ℂ Glieder		AR.	Dekl.	ℂ Glieder	
			in				in				in				in	
	$9^h\,5^m$	85° 26′	$0^s.01$	$0''.01$	$9^h\,5^m$	85° 27′	$0^s.01$	$0''.01$	$9^h\,4^m$	85° 27′	$0^s.01$	$0''.01$	$9^h\,4^m$	85° 27′	$0^s.01$	$0''.01$
1	1.75	56.13	−2	+12	3.20	7.29	+8	+2	60.38	17.85	+7	−6	53.78	26.87	−5	−6
2	1.87	56.46	+1	+11	3.17	7.66	+8	−4	60.22	18.19	+4	−9	53.52	27.10	−8	−2
3	1.99	56.79	+5	+9	3.14	8.04	+6	−8	60.06	18.53	+1	−10	53.26	27.33	−8	+2
4	2.10	57.12	+7	+5	3.10	8.41	+3	−10	59.89	18.86	−3	−8	53.00	27.55	−7	+5
5	2.21	57.46	+8	−1	3.05	8.79	−1	−10	59.72	19.20	−6	−5	52.73	27.76	−5	+8
6	2.31	57.80	+7	−6	3.00 / 2.94	9.16 / 9.54	−5 / −8	−8 / −4	59.54	19.52	−8	−1	52.47	27.98	−2	+8
7	2.41	58.14	+4	−9	2.88	9.91	−9	+1	59.36	19.85	−8	+3	52.20	28.18	+1	+6
8	2.50	58.49	+1	−11	2.81	10.29	−8	+5	59.17	20.17	−7	+7	51.92	28.38	+4	+4
9	2.58	58.84	−3	−10	2.74	10.66	−6	+7	58.98	20.49	−4	+8	51.65	28.58	+5	0
10	2.66	59.19	−7	−6	2.67	11.04	−3	+8	58.79	20.80	−1	+7	51.37	28.77	+6	−3
11	2.74	59.54	−8	−2	2.59	11.41	0	+6	58.59	21.11	+2	+5	51.10	28.96	+6	−6
12	2.81	59.89	−9	+2	2.51	11.78	+3	+4	58.39	21.42	+4	+2	50.82	29.15	+4	−8
13	2.88	60.25	−7	+5	2.42	12.15	+5	+1	58.19	21.73	+6	−1	50.54	29.33	+2	−8
14	2.94	60.61	−5	+7	2.32	12.52	+6	−3	57.98	22.03	+6	−5	50.26	29.50	0	−7
15	3.00	60.97	−2	+7	2.23	12.89	+6	−6	57.78	22.33	+5	−7	49.98	29.67	−3	−5
16	3.05	61.33	+1	+5	2.12	13.26	+5	−8	57.56	22.63	+4	−8	49.70	29.84	−5	−1
17	3.10	61.70	+4	+3	2.01	13.62	+3	−8	57.35	22.92	+1	−8	49.42	30.00	−6	+3
18	3.14	62.06	+5	−1	1.90	13.98	0	−8	57.13	23.21	−1	−6	49.13	30.15	−5	+7
19	3.18	62.43	+6	−4	1.78	14.34	−2	−6	56.91	23.50	−4	−3	48.84	30.30	−3	+10
20	3.21	62.80	+5	−6	1.66	14.70	−4	−2	56.68	23.78	−5	0	48.55	30.45	−1	+11
21	3.24	63.17	+4	−8	1.53	15.06	−5	+2	56.45	24.06	−6	+5	48.26	30.59	+3	+10
22	3.26	63.54	+2	−8	1.41	15.42	−5	+6	56.22	24.34	−5	+8	47.97	30.73	+5	+6
23	3.28	63.91	0	−7	1.27	15.78	−4	+9	55.99	24.61	−2	+10	47.69	30.87	+7	+2
24	3.29	64.28	−3	−4	1.13	16.13	−1	+11	55.75	24.88	+1	+11	47.40	30.99	+7	−4
25	3.30	64.65	−5	0	0.99	16.48	+2	+10	55.51	25.14	+4	+9	47.10	31.11	+6	−8
26	3.30	65.03	−5	+4	0.85	16.83	+5	+8	55.27	25.40	+6	+5	46.81	31.23	+3	−10
27	3.30	65.40	−5	+8	0.69	17.17	+7	+3	55.03	25.65	+8	0	46.52	31.34	−1	−11
28	3.29	65.78	−3	+10	0.54	17.51	+8	−2	54.78	25.90	+7	−5	46.22	31.44	−4	−8
29	3.27	66.15	0	+11	0.38	17.85	+7	−6	54.54	26.15	+5	−9	45.93	31.54	−7	−4
30	3.25	66.53	+3	+10					54.28	26.39	+2	−10	45.63	31.63	−8	0
31	3.23	66.91	+6	+7					54.03	26.63	−2	−9	45.34	31.72	−8	+4
32	3.20	67.29	+8	+2					53.78	26.87	−5	−6				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 26′ 50″	12.598	−12.558	−85° 27′ 10″	12.613	−12.574	−85° 27′ 30″	12.629	−12.589
60	12.606	−12.566	20	12.621	−12.581	40	12.636	−12.597

$\alpha_{1947.0} = 9^h\ 4^m\ 47^s.04$ $\delta_{1947.0} = -85°\ 27'\ 14''.67$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sc) ζ Octantis 5^m38

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$9^h 4^m$	$85° 27'$	$0.^s01$	$0.''01$	$9^h 4^m$	$85° 27'$	$0.^s01$	$0.''01$	$9^h 4^m$	$85° 27'$	$0.^s01$	$0.''01$	$9^h 4^m$	$85° 27'$	$0.^s01$	$0.''01$
	s	"			s	"			s	"			s	"		
1	45.34	31.72	−8	+4	36.35	31.83	+2	+5	29.17	27.31	+6	−3	25.02	19.03	+1	−8
2	45.04	31.81	−6	+7	36.07	31.75	+4	+2	28.97	27.09	+5	−6	24.95	18.73	−2	−6
3	44.75	31.89	−3	+8	35.80	31.67	+5	−1	28.78	26.87	+4	−8	24.90	18.43	−4	−3
4	44.45	31.96	0	+7	35.53	31.58	+6	−4	28.60	26.64	+2	−8	24.84	18.12	−5	+1
5	44.15	32.03	+3	+5	35.26	31.48	+5	−7	28.41	26.41	0	−7	24.79	17.81	−5	+5
6	43.86	32.09	+5	+2	35.00	31.38	+4	−8	28.24	26.17	−2	−5	24.75	17.51	−4	+9
7	43.56	32.15	+6	−2	34.73	31.28	+2	−8	28.06	25.93	−4	−2	24.71	17.19	−2	+11
8	43.26	32.20	+6	−5	34.47	31.17	−1	−7	27.89	25.69	−5	+2	*)24.68	16.88	+1	+12
9	42.97	32.24	+5	−7	34.21	31.05	−3	−4	27.73	25.44	−5	+7	24.65	16.57	+4	+10
10	42.67	32.28	+3	−8	33.95	30.93	−5	0	27.56	25.19	−4	+10	24.62	16.26	+7	+6
11	42.37	32.32	+1	−8	33.70	30.80	−5	+4	27.40	24.94	−1	+12	24.60	15.94	+9	+1
12	42.08	32.35	−2	−6	33.44	30.67	−5	+8	27.25	24.69	+3	+11	24.58	15.63	+8	−4
13	41.78	32.38	−4	−2	33.19	30.54	−3	+11	27.09	24.43	+6	+9	24.57	15.32	+6	−8
14	41.48	32.40	−5	+2	32.95	30.40	0	+12	26.94	24.17	+8	+4	24.56	15.01	+3	−10
15	41.19	32.41	−5	+6	32.70	30.25	+4	+10	26.80	23.90	+9	−1	24.56	14.69	−1	−9
16	40.90	32.42	−4	+10	32.46	30.10	+6	+7	26.66	23.64	+7	−6	24.57	14.38	−5	−7
17	40.61	32.43	−2	+12	32.22	29.95	+8	+2	26.53	23.36	+4	−10	24.58	14.06	−8	−3
18	40.32	32.42	+1	+11	31.98	29.79	+8	−4	26.40	23.09	+1	−11	24.59	13.75	−9	+2
19	40.03	32.41	+5	+8	31.75	29.62	+6	−8	26.27	22.81	−4	−9	24.61	13.44	−8	+6
20	39.74	32.40	+7	+4	31.52	29.45	+2	−11	26.14	22.53	−7	−6	24.63	13.13	−5	+7
21	39.45	32.38	+8	−1	31.29	29.28	−2	−11	26.02	22.26	−9	−1	24.66	12.81	−2	+7
22	39.16	32.36	+7	−6	31.06	29.10	−5	−8	25.91	21.97	−9	+3	24.69	12.50	+1	+6
23	38.87	32.33	+4	−10	30.84	28.92	−8	−4	25.80	21.69	−7	+6	24.73	12.20	+4	+2
24	38.58	32.30	+1	−11	30.62	28.73	−9	+1	25.69	21.40	−4	+8	24.77	11.89	+5	−1
25	38.30	32.26	−3	−10	30.40	28.54	−8	+5	25.59	21.11	−1	+7	24.82	11.58	+6	−5
26	38.01	32.22	−7	−6	30.19	28.34	−6	+7	25.50	20.82	+2	+4	24.87	11.28	+5	−8
27	37.73	32.17	−8	−2	29.98	28.14	−3	+7	25.41	20.53	+4	+1	24.93	10.97	+3	−9
28	37.45	32.11	−8	+2	29.77	27.94	0	+6	25.32	20.23	+5	−2	24.99	10.67	+1	−9
29	37.18	32.05	−7	+6	29.57	27.73	+3	+3	25.24	19.93	+5	−6	25.06	10.36	−1	−7
30	36.90	31.98	−5	+8	29.37	27.52	+5	0	25.16	19.63	+4	−8	25.13	10.06	−3	−5
31	36.62	31.91	−1	+7	29.17	27.31	+6	−3	25.09	19.34	+3	−9	25.20	9.76	−5	−1
32	36.35	31.83	+2	+5					25.02	19.03	+1	−8	25.28	9.46	−6	+3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 27′ 0″	12.606	−12.566	−85° 27′ 20″	12.621	−12.581	−85° 27′ 30″	12.629	−12.589
10	12.613	−12.574	30	12.629	−12.589	40	12.636	−12.597

$\alpha_{1947.0} = 9^h\ 4^m\ 47.^s04$ $\delta_{1947.0} = -85°\ 27'\ 14.''67$

*) Tag der doppelten unteren Kulmination: Aug. 8.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sc) ζ Octantis $5^m\!.38$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in	
	$9^h\,4^m$	$-85°\,27'$	$0^s\!.01$	$0''\!.01$	$9^h\,4^m$	$-85°\,26'$	$0^s\!.01$	$0''\!.01$	$9^h\,4^m$	$-85°\,26'$	$0^s\!.01$	$0''\!.01$	$9^h\,4^m$	$-85°\,27'$	$0^s\!.01$	$0''\!.01$
1	25.28	9.46	−6	+3	29.77	61.92	−2	+11	37.39	58.70	+8	+1	45.23	1.37	+4	−10
2	25.37	9.17	−5	+7	29.98	61.74	+1	+11	37.66	58.70	+8	−4	45.46	1.56	+1	−11
3	25.46	8.87	−3	+10	30.19	61.55	+5	+9	37.93	58.70	+6	−8	45.70	1.75	−3	−9
4	25.56	8.58	0	+11	30.41	61.37	+7	+5	38.20	58.70	+3	−10	45.93	1.95	−7	−5
5	25.66	8.30	+3	+10	30.63	61.20	+8	0	38.48	58.72	−1	−10	46.16	2.15	−8	−1
6	25.77	8.01	+6	+8	30.85	61.03	+8	−5	38.75	58.74	−4	−7	46.38	2.36	−8	+4
7	25.88	7.73	+8	+3	31.08	60.87	+5	−9	39.02	58.77	−7	−3	46.60	2.58	−7	+7
8	25.99	7.45	+9	−2	31.31	60.71	+2	−10	39.29	58.80	−8	+1	46.82	2.80	−4	+8
9	26.11	7.17	+7	−6	31.54	60.56	−2	−9	39.57	58.84	−8	+5	47.04	3.02	0	+7
10	26.24	6.89	+4	−9	31.77	60.41	−6	−6	39.84	58.89	−5	+8	47.25	3.25	+2	+5
11	26.36	6.62	0	−10	32.00	60.27	−8	−1	40.10	58.94	−2	+8	47.46	3.49	+5	+1
12	26.50	6.35	−4	−8	32.24	60.14	−8	+3	40.37	59.00	+1	+7	47.67	3.73	+6	−3
13	26.63	6.08	−7	−4	32.48	60.01	−7	+7	40.64	59.07	+3	+4	47.87	3.97	+5	−6
14	26.77	5.82	−8	+1	32.72	59.88	−4	+8	40.90	59.14	+5	0	48.07	4.22	+4	−8
15	26.92	5.56	−8	+5	32.97	59.77	−1	+8	41.17	59.22	+6	−4	48.27	4.48	+2	−9
16	27.07	5.30	−6	+7	33.22	59.66	+2	+6	41.43	59.31	+5	−7	48.46	4.74	0	−8
17	27.22	5.05	−3	+8	33.47	59.55	+4	+2	41.70	59.40	+4	−9	48.65	5.01	−2	−6
18	27.38	4.80	0	+7	33.72	59.45	+6	−2	41.96	59.50	+1	−9	48.84	5.28	−4	−3
19	27.54	4.55	+3	+4	33.97	59.35	+6	−6	42.22	59.61	−1	−8	49.02	5.55	−6	+1
20	27.70	4.31	+5	0	34.23	59.26	+5	−8	42.48	59.72	−3	−5	49.20	5.83	−6	+6
21	27.87	4.07	+6	−4	34.48	59.18	+3	−9	42.74	59.84	−5	−1	49.37	6.11	−4	+9
22	28.04	3.84	+5	−7	34.74	59.11	+1	−9	43.00	59.96	−6	+3	49.54	6.40	−2	+12
23	28.22	3.61	+4	−9	35.00	59.04	−2	−7	43.26	60.09	−5	+7	49.70	6.69	+1	+12
24	28.40	3.38	+2	−9	35.26	58.98	−4	−4	43.51	60.23	−4	+10	49.86	6.99	+4	+10
25	28.59	3.16	−1	−8	35.53	58.92	−5	0	43.76	60.38	−1	+12	50.02	7.29	+7	+6
26	28.78	2.94	−3	−6	35.79	58.87	−6	+4	44.01	60.53	+2	+11	50.17	7.59	+9	+1
27	28.97	2.73	−5	−2	36.06	58.83	−5	+8	44.26	60.69	+6	+8	50.32	7.90	+8	−4
28	29.17	2.52	−6	+2	36.32	58.79	−3	+10	44.51	60.85	+8	+3	50.47	8.21	+6	−8
29	29.36	2.32	−5	+6	36.59	58.76	0	+11	44.75	61.02	+8	−2	50.61	8.53	+3	−11
30	29.57	2.12	−4	+9	36.86	58.73	+3	+10	44.99	61.19	+7	−6	50.74	8.84	−2	−10
31	29.77	1.92	−2	+11	37.12	58.71	+6	+6	45.23	61.37	+4	−10	50.87	9.17	−5	−7
32					37.39	58.70	+8	+1					51.00	9.49	−8	−3

δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 26′ 50″	12.598	−12.558	−85° 27′ 0″	12.606	−12.566
60	12.606	−12.566	10	12.613	−12.574

$\alpha_{1947.0} = 9^h\ 4^m\ 47^s\!.04$ $\delta_{1947.0} = -85°\ 27'\ 14''\!.67$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sd) ι Octantis $5^m.38$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	12^h49^m	$-84°49'$	in 0.01^s	$0.01''$	12^h49^m	$-84°49'$	in 0.01^s	$0.01''$	12^h49^m	$-84°49'$	in 0.01^s	$0.01''$	12^h49^m	$-84°50'$	in 0.01^s	$0.01''$
1	$6^s.62$	$44''.32$	−8	+7	$14^s.18$	$49''.65$	+3	+10	$19^s.16$	$58''.31$	+5	+7	$21^s.65$	$10''.01$	+5	−9
2	6.88	44.40	−7	+10	14.39	49.90	+6	+6	19.29	58.67	+7	+3	21.68	10.40	+1	−11
3	7.14	44.49	−4	+12	14.61	50.16	+8	+1	19.42	59.03	+8	−3	21.70	10.79	−2	−10
4	7.40	44.59	0	+11	14.82	50.43	+8	−5	19.55	59.39	+7	−7	{21.72 {21.73	11.17 11.56	−5 −7	−7 −4
5	7.66	44.69	+4	+8	15.02	50.70	+6	−9	19.67	59.75	+4	−10	21.74	11.94	−7	0
6	7.92	44.80	+7	+3	15.23	50.97	+2	−11	19.79	60.11	0	−11	21.74	12.33	−6	+4
7	8.18	44.91	+8	−2	15.43	51.25	−1	−11	19.90	60.48	−3	−9	21.74	12.71	−3	+6
8	8.43	45.03	+7	−7	15.63	51.54	−5	−9	20.02	60.84	−6	−6	21.74	13.09	0	+7
9	8.68	45.16	+5	−11	15.83	51.83	−7	−5	20.12	61.21	−7	−3	21.73	13.47	+2	+6
10	8.94	45.30	+1	−12	16.02	52.12	−7	−1	20.23	61.58	−7	+1	21.72	13.85	+5	+4
11	9.19	45.44	−2	−11	16.21	52.41	−6	+2	20.33	61.96	−5	+4	21.71	14.23	+7	+2
12	9.45	45.58	−5	−8	16.41	52.71	−4	+5	20.43	62.33	−2	+6	21.70	14.62	+7	−1
13	9.70	45.73	−7	−4	16.59	53.01	−1	+6	20.53	62.71	+1	+6	21.68	14.99	+6	−4
14	9.95	45.89	−7	0	16.78	53.32	+2	+6	20.62	63.08	+4	+5	21.66	15.37	+4	−5
15	10.20	46.05	−5	+3	16.96	53.63	+5	+4	20.71	63.46	+6	+3	21.63	15.75	+1	−6
16	10.45	46.22	−3	+5	17.14	53.94	+6	+2	20.80	63.84	+7	+1	21.60	16.12	−2	−6
17	10.69	46.40	0	+6	17.31	54.26	+7	−1	20.88	64.22	+7	−2	21.57	16.49	−5	−4
18	10.94	46.58	+3	+5	17.48	54.58	+6	−3	20.96	64.60	+5	−5	21.53	16.87	−7	0
19	11.18	46.76	+5	+4	17.65	54.91	+5	−5	21.03	64.99	+3	−6	21.49	17.23	−8	+4
20	11.42	46.95	+7	+2	17.81	55.24	+2	−6	21.10	65.37	0	−6	21.44	17.60	−7	+7
21	11.66	47.15	+7	−1	17.97	55.57	−1	−6	21.16	65.75	−3	−5	21.39	17.97	−5	+10
22	11.90	47.35	+6	−4	18.13	55.90	−4	−4	21.22	66.14	−6	−3	21.34	18.33	−2	+11
23	12.14	47.56	+4	−5	18.29	56.24	−6	−1	21.28	66.53	−8	+1	21.28	18.70	+2	+9
24	12.38	47.77	+1	−6	18.44	56.58	−8	+3	21.34	66.91	−8	+5	21.23	19.06	+6	+5
25	12.61	47.99	−2	−5	18.59	56.92	−8	+6	21.39	67.30	−6	+8	21.16	19.41	+8	+1
26	12.84	48.21	−5	−3	18.74	57.27	−6	+10	21.44	67.68	−4	+10	21.10	19.77	+8	−4
27	13.07	48.44	−7	0	18.88	57.61	−3	+11	21.49	68.07	0	+10	21.03	20.12	+6	−8
28	13.30	48.67	−8	+4	19.02	57.96	+1	+10	21.53	68.46	+4	+8	20.96	20.47	+3	−11
29	13.52	48.91	−7	+8	19.16	58.31	+5	+7	21.57	68.85	+7	+4	20.88	20.82	−1	−11
30	13.74	49.15	−5	+11					21.60	69.23	+8	−1	20.80	21.16	−4	−9
31	13.96	49.40	−1	+11					21.63	69.62	+7	−6	20.72	21.51	−6	−6
32	14.18	49.65	+3	+10					21.65	70.01	+5	−9				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−84° 49′ 40″	11.093	−11.047	−84° 50′ 0″	11.105	−11.059	−84° 50′ 20″	11.117	−11.071
50	11.099	−11.053	10	11.111	−11.065	30	11.122	−11.077

$\alpha_{1947.0} = 12^h\ 49^m\ 11^s.30$ $\delta_{1947.0} = -84°\ 50'\ 10''.00$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sd) ι Octantis $5^m.38$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$12^h 49^m$	$84° 50'$	$0^s.01$	$0''.01$	$12^h 49^m$	$84° 50'$	$0^s.01$	$0''.01$	$12^h 49^m$	$84° 50'$	$0^s.01$	$0''.01$	$12^h 48^m$	$84° 50'$	$0^s.01$	$0''.01$
	s	"			s	"			s	"			s	"		
1	20.72	21.51	−6	−6	16.71	30.52	−2	+6	10.75	35.17	+5	+4	63.94	34.77	+5	−5
2	20.64	21.85	−7	−2	16.53	30.75	+1	+6	10.53	35.25	+7	+1	63.73	34.67	+3	−6
3	20.55	22.19	−6	+2	16.36	30.98	+3	+5	10.31	35.31	+7	−1	63.53	34.56	0	−7
4	20.46	22.52	−4	+5	16.18	31.19	+5	+3	10.09	35.37	+6	−4	63.32	34.44	−3	−5
5	20.36	22.85	−2	+6	16.00	31.41	+7	+1	9.87	35.43	+5	−5	63.12	34.32	−6	−2
6	20.27	23.18	+1	+6	15.82	31.62	+7	−2	9.65	35.48	+2	−6	62.92	34.20	−8	+2
7	20.16	23.51	+4	+5	15.64	31.82	+6	−4	9.43	35.52	−1	−6	62.72	34.07	−8	+6
8	20.06	23.83	+6	+3	15.45	32.02	+4	−6	9.20	35.56	−4	−4	62.52	33.93	−7	+10
9	19.95	24.15	+7	0	15.26	32.21	+1	−6	8.98	35.59	−7	−1	62.32	33.79	−4	+12
10	19.84	24.46	+7	−3	15.07	32.40	−3	−5	8.76	35.62	−9	+3	62.12	33.65	−1	+12
11	19.73	24.77	+5	−5	14.88	32.58	−6	−3	8.53	35.64	−8	+8	61.93	33.50	+3	+10
12	19.62	25.09	+3	−6	14.69	32.76	−8	+1	8.31	35.65	−6	+11	61.74	33.35	+6	+6
13	19.50	25.39	0	−6	14.49	32.94	−9	+5	8.09	35.66	−3	+12	61.55	33.19	+8	+1
14	19.38	25.70	−4	−4	14.30	33.10	−8	+9	7.87	35.67	+1	+12	61.36	33.03	+8	−5
15	19.25	26.00	−7	−1	14.10	33.27	−5	+12	7.64	35.67	+5	+8	61.18	32.86	+5	−9
16	19.13	26.30	−8	+3	13.90	33.43	−1	+12	7.42	35.66	+7	+3	60.99	32.68	+2	−11
17	18.99	26.59	−8	+7	13.70	33.58	+3	+10	7.20	35.65	+8	−2	60.82	32.50	−2	−11
18	18.86	26.88	−6	+10	13.50	33.73	+7	+5	6.98	35.63	+7	−7	60.64	32.32	−6	−8
19	18.72	27.17	−3	+11	13.29	33.87	+8	0	6.76	35.60	+4	−11	60.46	32.13	−7	−4
20	18.58	27.45	+1	+10	13.09	34.01	+8	−5	6.54	35.57	0	−12	60.29	31.94	−7	0
21	18.44	27.73	+5	+7	12.88	34.15	+6	−10	6.32	35.54	−4	−10	60.11	31.74	−6	+3
22	18.29	28.00	+8	+3	12.68	34.27	+3	−12	6.09	35.49	−6	−7	59.95	31.54	−3	+5
23	18.15	28.27	+9	−3	12.47	34.40	−1	−12	5.87	35.45	−7	−3	59.78	31.33	0	+6
24	18.00	28.54	+7	−7	12.26	34.51	−5	−9	5.66	35.39	−7	+1	59.62	31.12	+4	+5
25	17.84	28.80	+5	−11	12.05	34.62	−7	−5	5.44	35.33	−4	+4	59.46	30.91	+6	+3
26	17.69	29.06	+1	−12	11.83	34.73	−7	−1	5.22	35.27	−2	+5	59.31	30.69	+7	0
27	17.53	29.32	−3	−10	11.62	34.83	−6	+2	5.01	35.20	+2	+5	59.16	30.47	+7	−3
28	17.37	29.56	−6	−7	11.40	34.92	−3	+5	4.79	35.12	+4	+4	59.01	30.24	+6	−5
29	17.21	29.81	−7	−3	11.18	35.01	0	+6	4.58	35.04	+6	+2	58.86	30.01	+4	−7
30	17.04	30.05	−7	+1	10.96	35.09	+3	+5	4.37	34.96	+7	−1	58.72	29.78	+1	−7
31	16.87	30.29	−5	+4	10.75	35.17	+5	+4	4.15	34.87	+7	−3	58.58	29.54	−2	−6
32	16.71	30.52	−2	+6					3.94	34.77	+5	−5	58.44	29.30	−5	−4

δ	sec δ	tg δ	δ	sec δ	tg δ
−84° 50′ 20″	11.117	−11.071	−84° 50′ 30″	11.122	−11.077
30	11.122	−11.077	40	11.128	−11.083

$\alpha_{1947.0} = 12^h\ 49^m\ 11^s.30$ $\delta_{1947.0} = -84°\ 50'\ 10''.00$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sd) ι Octantis 5^m38

Tag	September AR.	Dekl.	☾ Glieder		Oktober AR.	Dekl.	☾ Glieder		November AR.	Dekl.	☾ Glieder		Dezember AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	12^h48^m	84° 50′	$0^s.01$	$0''.01$	12^h48^m	84° 50′	$0^s.01$	$0''.01$	12^h48^m	84° 50′	$0^s.01$	$0''.01$	12^h49^m	84° 50′	$0^s.01$	$0''.01$
1	58.44	29.30	−5	−4	56.14	20.84	−8	+6	57.96	11.85	+3	+10	3.52	6.10	+8	−2
2	58.31	29.05	−7	0	56.13	20.53	−6	+9	58.09	11.59	+6	+6	3.75	5.99	+7	−7
3	58.18	28.81	−8	+4	56.12	20.23	−3	+11	58.22	11.34	+8	+1	3.97	5.89	+4	−10
4	58.06	28.55	−7	+8	*)56.12	19.93	0	+11	58.36	11.09	+8	−4	4.19	5.79	0	−11
5	57.93	28.30	−5	+11	56.13	19.62	+4	+9	58.50	10.85	+6	−8	4.41	5.70	−4	−10
6	57.82	28.04	−2	+12	56.14	19.32	+7	+4	58.65	10.61	+3	−10	4.63	5.61	−6	−6
7	57.70	27.78	+2	+11	56.15	19.01	+8	−1	58.80	10.37	−1	−10	4.87	5.53	−8	−2
8	57.59	27.52	+5	+8	56.17	18.71	+7	−5	58.95	10.14	−5	−8	5.11	5.45	−7	+2
9	57.48	27.25	+7	+3	56.19	18.40	+4	−9	59.11	9.91	−7	−4	5.35	5.38	−5	+5
10	57.37	26.98	+8	−2	56.21	18.10	+1	−10	59.27	9.69	−8	0	5.60	5.32	−2	+6
11	57.27	26.70	+6	−7	56.24	17.80	−3	−9	59.44	9.47	−6	+3	5.85	5.26	+2	+6
12	57.18	26.43	+3	−10	56.28	17.50	−6	−7	59.61	9.25	−4	+6	6.10	5.21	+4	+4
13	57.08	26.15	−1	−10	56.32	17.20	−7	−3	59.78	9.04	−1	+6	6.35	5.17	+7	+2
14	57.00	25.87	−4	−9	56.36	16.90	−7	+1	59.96	8.83	+3	+6	6.60	5.13	+7	−1
15	56.91	25.59	−7	−5	56.41	16.60	−5	+4	60.14	8.63	+5	+4	6.85	5.10	+7	−4
16	56.83	25.30	−8	−1	56.47	16.31	−2	+6	60.33	8.43	+7	+1	7.11	5.08	+5	−6
17	56.76	25.01	−7	+2	56.53	16.01	+1	+6	60.52	8.23	+8	−2	7.37	5.06	+3	−7
18	56.69	24.72	−4	+5	56.59	15.71	+4	+5	60.70	8.04	+6	−5	7.62	5.05	0	−7
19	56.62	24.43	−1	+6	56.66	15.42	+6	+2	60.90	7.86	+4	−7	7.88	5.04	−4	−5
20	56.56	24.14	+2	+6	56.73	15.13	+7	0	61.09	7.68	+1	−7	8.14	5.04	−6	−2
21	56.50	23.85	+5	+4	56.80	14.84	+7	−3	61.29	7.51	−2	−6	8.40	5.05	−8	+2
22	56.44	23.55	+7	+1	56.89	14.56	+6	−6	61.49	7.35	−5	−4	8.66	5.06	−9	+6
23	56.39	23.26	+8	−2	56.97	14.27	+4	−7	61.70	7.19	−7	−1	8.92	5.08	−7	+10
24	56.34	22.96	+7	−5	57.06	13.99	0	−7	61.91	7.03	−8	+3	9.18	5.11	−4	+12
25	56.30	22.66	+5	−6	57.16	13.72	−3	−6	62.12	6.88	−8	+8	9.45	5.14	−1	+12
26	56.26	22.35	+2	−7	57.26	13.44	−6	−3	62.34	6.74	−6	+11	9.71	5.18	+4	+10
27	56.23	22.05	−1	−7	57.37	13.17	−8	+1	62.58	6.60	−3	+12	9.98	5.22	+7	+6
28	56.20	21.75	−4	−5	57.48	12.90	−8	+5	62.82	6.47	+1	+11	10.24	5.28	+8	0
29	56.17	21.44	−7	−2	57.59	12.63	−7	+8	63.06	6.34	+5	+8	10.50	5.33	+8	−5
30	56.15	21.14	−8	+2	57.71	12.37	−5	+11	63.29	6.22	+8	+3	10.77	5.40	+6	−9
31	56.14	20.84	−8	+6	57.83	12.10	−1	+11	63.52	6.10	+8	−2	11.03	5.47	+2	−11
32					57.96	11.85	+3	+10					11.29	5.55	−2	−11

δ	sec δ	tg δ	δ	sec δ	tg δ
−84° 50′ 0″	11.105	−11.059	−84° 50′ 29″	11.117	−11.071
10	11.111	−11.065	30	11.122	−11.077

$\alpha_{1947.0} = 12^h\ 49^m\ 11^s.30$ $\delta_{1947.0} = -84°\ 50'\ 10''.00$

*) Tag der doppelten unteren Kulmination: Okt. 4.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Se) 20 G. Octantis $6^m.52$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
		—	in			—	in			—	in			—	in	
	14^h59^m	87° 55′	$0^s.01$	0″.01	14^h59^m	87° 55′	$0^s.01$	0″.01	15^h0^m	87° 55′	$0^s.01$	0″.01	15^h0^m	87° 56′	$0^s.01$	0″.01
	s	″			s	″			s	″			s	″		
1	23.50	51.12	−23	+1	43.95	50.24	−1	+11	2.61	54.01	+5	+10	19.28	2.21	+17	−6
2	24.10	51.00	−22	+5	44.64	50.30	+8	+9	3.23	54.22	+13	+7	19.71	2.52	+11	−9
3	24.71	50.89	−17	+9	45.33	50.36	+16	+6	3.85	54.43	+19	+3	20.14	2.84	+3	−11
4	25.33	50.79	−7	+11	46.02	50.44	+20	+1	4.46	54.65	+20	−2	20.56	3.16	−5	−11
5	25.95	50.69	+3	+10	46.70	50.52	+19	−5	5.07	54.86	+16	−7	20.96	3.48	−12	−8
6	26.57	50.60	+13	+8	47.39	50.60	+14	−9	5.67	55.09	+8	−10	21.36	3.81	−15	−4
7	27.20	50.52	+19	+3	48.07	50.69	+6	−11	6.27	55.32	0	−11	21.76	4.13	−15	0
8	27.84	50.44	+21	−2	48.76	50.79	−3	−12	6.86	55.55	−8	−10	22.14	4.46	−12	+3
9	28.48	50.36	+18	−7	49.44	50.89	−10	−9	7.45	55.78	−13	−7	22.51	4.80	−6	+6
10	29.12	50.29	+11	−11	50.12	51.00	−14	−6	8.03	56.03	−15	−3	22.88	5.13	+1	+8
11	29.77	50.23	+3	−12	50.80	51.11	−14	−2	8.61	56.27	−14	+1	23.24	5.47	+7	+8
12	30.42	50.17	−5	−11	51.48	51.22	−12	+2	9.18	56.52	−9	+5	23.59	5.81	+13	+6
13	31.07	50.12	−11	−8	52.16	51.35	−7	+5	9.75	56.77	−3	+7	23.94	6.14	+16	+4
14	31.73	50.08	−14	−4	52.84	51.47	0	+7	10.31	57.02	+4	+8	24.27	6.49	+16	+1
15	32.38	50.04	−13	0	53.51	51.61	+7	+8	10.87	57.28	+10	+7	24.60	6.83	+13	−2
16	33.05	50.00	−10	+4	54.18	51.75	+12	+6	11.42	57.54	+15	+5	24.91	7.17	+8	−5
17	33.71	49.97	−4	+6	54.85	51.89	+15	+4	11.96	57.81	+16	+3	25.22	7.52	0	−7
18	34.38	49.95	+2	+7	55.51	52.04	+16	+1	12.49	58.08	+15	−1	25.52	7.87	−8	−7
19	35.05	49.93	+8	+7	56.17	52.20	+14	−2	13.02	58.35	+12	−4	25.81	8.21	−15	−5
20	35.73	49.92	+13	+6	56.83	52.36	+10	−5	13.55	58.63	+6	−6	26.09	8.57	−20	−2
21	36.41	49.92	+15	+3	57.49	52.52	+3	−6	14.06	58.91	−2	−7	26.36	8.92	−22	+2
22	37.09	49.92	+15	0	58.14	52.69	−5	−7	14.57	59.20	−10	−6	26.63	9.27	−18	+6
23	37.77	49.92	+12	−2	58.80	52.86	−13	−6	15.07	59.49	−17	−4	26.88	9.62	−11	+9
24	38.45	49.94	+7	−5	59.44	53.04	−19	−3	15.57	59.77	−21	−1	27.13	9.98	−1	+10
25	39.14	49.95	0	−7	60.08	53.23	−22	+1	16.06	60.07	−20	+4	27.37	10.33	+9	+9
26	39.82	49.98	−9	−6	60.72	53.41	−20	+5	16.54	60.36	−16	+7	27.59	10.69	+17	+6
27	40.51	50.01	−16	−5	61.36	53.61	−14	+9	17.02	60.66	−8	+10	27.81	11.04	+21	+1
28	41.19	50.04	−21	−1	61.98	53.81	−5	+10	17.49	60.96	+2	+10	28.02	11.40	+20	−4
29	41.88	50.08	−23	+3	62.61	54.01	+5	+10	17.95	61.27	+11	+8	28.22	11.76	+15	−8
30	42.57	50.13	−19	+7					18.40	61.58	+18	+4	28.40	12.12	+7	−11
31	43.26	50.18	−12	+10					18.84	61.89	+20	−1	28.58	12.48	−1	−11
32	43.95	50.24	−1	+11					19.28	62.21	+17	−6				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 55′ 40″	27.655	−27.637	−87° 56′ 0″	27.730	−27.712	−87° 56′ 10″	27.767	−27.749
50	27.693	−27.675	10	27.767	−27.749	20	27.804	−27.786

$\alpha_{1947.0} = 14^h\ 59^m\ 58^s.05$ $\delta_{1947.0} = -87°\ 56'\ 10''.16$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Se) 20 G. Octantis $6^m.52$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$15^h 0^m$	−87° 56′	in $0^s.01$	in $0''.01$	$15^h 0^m$	−87° 56′	in $0^s.01$	in $0''.01$	$15^h 0^m$	−87° 56′	in $0^s.01$	in $0''.01$	$14^h 59^m$	−87° 56′	in $0^s.01$	in $0''.01$
	s	"			s	"			s	"			s	"		
1	28.58	12.48	− 1	−11	29.32	23.74	−10	+ 4	21.43	32.41	+ 8	+ 7	66.65	37.40	+15	− 1
2	28.75	12.84	− 9	− 9	29.19	24.07	+ 4	+ 6	21.04	32.65	+13	+ 6	66.11	37.47	+11	− 4
3	28.92	13.20	−14	− 6	29.05	24.40	+ 3	+ 7	20.65	32.88	+15	+ 4	65.56	37.54	+ 5	− 6
4	29.07	13.55	−15	− 2	28.89	24.73	+ 9	+ 7	20.24	33.10	+16	+ 1	65.01	37.61	− 3	− 7
5	29.21	13.91	−13	+ 2	28.73	25.05	+13	+ 6	19.83	33.32	+14	− 2	64.46	37.67	−11	− 6
6	29.35	14.27	− 8	+ 5	28.56	25.37	+16	+ 3	19.42	33.54	+ 9	− 5	63.91	37.72	−18	− 4
7	29.47	14.63	− 2	+ 7	28.38	25.69	+15	0	18.99	33.75	+ 2	− 6	63.35	37.77	−22	0
8	29.59 29.69	14.99 15.35	+ 5 +11	+ 8 + 7	28.18	26.01	+12	− 3	18.56	33.95	− 6	− 7	62.79	37.81	−23	+ 4
9	29.79	15.71	+15	+ 5	27.98	26.32	+ 6	− 5	18.12	34.15	−15	− 5	62.23	37.85	−19	+ 8
10	29.87	16.07	+16	+ 2	27.77	26.63	− 2	− 7	17.68	34.35	−21	− 2	61.67	37.88	−11	+11
11	29.95	16.43	+14	− 1	27.56	26.94	−11	− 6	17.23	34.54	−24	+ 2	61.12	37.90	− 1	+12
12	30.01	16.79	+10	− 4	27.33	27.25	−18	− 4	16.77	34.73	−22	+ 6	60.56	37.92	+ 9	+10
13	30.07	17.15	+ 3	− 6	27.10	27.55	−23	− 1	16.31	34.91	−16	+10	59.99	37.93	+17	+ 6
14	30.12	17.51	− 5	− 7	26.85	27.85	−24	+ 3	15.85	35.09	− 7	+12	59.43	37.94	+20	0
15	30.15	17.86	−13	− 6	26.60	28.14	−20	+ 8	15.38	35.26	+ 4	+11	58.87	37.94	+18	− 5
16	30.18	18.22	−20	− 3	26.34	28.44	−11	+11	14.90	35.43	+13	+ 8	58.30	37.94	+12	− 9
17	30.20	18.57	−23	+ 1	26.07	28.72	− 1	+11	14.42	35.59	+20	+ 3	57.74	37.93	+ 4	−12
18	30.21	18.93	−21	+ 5	25.79	29.01	+10	+10	13.93	35.75	+21	− 2	57.17	37.91	− 5	−11
19	30.20	19.28	−15	+ 9	25.50	29.29	+18	+ 5	13.43	35.90	+17	− 8	56.61	37.89	−12	− 9
20	30.19	19.63	− 6	+11	25.21	29.57	+21	0	12.93	36.05	+10	−11	56.04	37.86	−15	− 5
21	30.17	19.98	+ 5	+10	24.90	29.85	+21	− 5	12.43	36.19	0	−12	55.48	37.82	−14	0
22	30.14	20.33	+14	+ 7	24.59	30.13	+15	−10	11.93	36.33	− 7	−11	54.92	37.78	−10	+ 3
23	30.10	20.68	+20	+ 3	24.27	30.40	+ 6	−12	11.42	36.46	−13	− 7	54.37	37.74	− 3	+ 6
24	30.06	21.03	+22	− 2	23.94	30.66	− 3	−12	10.91	36.59	−15	− 3	53.81	37.69	+ 4	+ 7
25	30.00	21.37	+18	− 7	23.61	30.92	−10	−10	10.39	36.71	−12	+ 1	53.26	37.63	+11	+ 7
26	29.93	21.72	+11	−11	23.26	31.18	−14	− 6	9.86	36.82	− 7	+ 4	52.71	37.57	+15	+ 5
27	29.85	22.06	+ 2	−12	22.91	31.44	−14	− 1	9.34	36.93	− 1	+ 6	52.16	37.50	+17	+ 2
28	29.77	22.40	− 6	−11	22.55	31.69	−11	+ 2	8.81	37.03	+ 6	+ 7	51.61	37.42	+17	− 1
29	29.67	22.73	−12	− 8	22.18	31.93	− 5	+ 5	8.27	37.13	+12	+ 6	51.06	37.34	+14	− 4
30	29.56	23.07	−15	− 4	21.81	32.17	+ 1	+ 7	7.73	37.22	+15	+ 4	50.52	37.26	+ 8	− 6
31	29.45	23.41	−14	0	21.43	32.41	+ 8	+ 7	7.20	37.31	+17	+ 1	49.98	37.16	0	− 7
32	29.32	23.74	−10	+ 4					6.65	37.40	+15	− 1	49.44	37.07	− 8	− 7

δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 56′ 10″	27.767	−27.749	−87° 56′ 30″	27.842	−27.824
20	27.804	−27.786	40	27.880	−27.862

$\alpha_{1947.0} = 14^h\ 59^m\ 58^s.05$ $\delta_{1947.0} = -87°\ 56'\ 10''.16$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Se) 20 G. Octantis $6^m.52$

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	14^h59^m	$-87°\ 56'$	in $0^s.01$ | $0''.01$	14^h59^m	$-87°\ 56'$	in $0^s.01$ | $0''.01$	14^h59^m	$-87°\ 56'$	in $0^s.01$ | $0''.01$	14^h59^m	$-87°\ 56'$	in $0^s.01$ | $0''.01$
	s	"		s	"		s	"		s	"	
1	49.44	37.07	−8 −7	35.89	31.75	−22 0	30.30	22.92	−1 +11	35.50	14.16	+20 +3
2	48.91	36.96	−15 −5	35.56	31.51	−20 +5	30.30	22.61	+9 +10	35.85	13.90	+21 −2
3	48.38	36.85	−20 −2	35.23	31.26	−15 +8	30.32	22.31	+16 +6	36.21	13.64	+17 −7
4	47.86	36.74	−22 +2	34.91	31.01	−7 +11	30.34	22.00	+20 +1	36.58	13.39	+9 −11
5	47.34	36.62	−20 +7	34.60	30.75	+2 +11	30.38	21.70	+19 −4	36.96	13.14	0 −12
6	46.83	36.49	−14 +10	34.31	30.49	+11 +9	*)30.43	21.39	+13 −8	37.35	12.90	−8 −10
7	46.32	36.36	−5 +12	34.02	30.23	+18 +5	30.49	21.08	+5 −11	37.75	12.66	−14 −7
8	45.81	36.22	+5 +11	33.74	29.96	+19 −1	30.56	20.78	−4 −11	38.16	12.42	−16 −3
9	45.31	36.08	+14 +8	33.47	29.70	+16 −6	30.65	20.47	−11 −9	38.58	12.19	−13 +2
10	44.81	35.94	+19 +3	33.21	29.42	+10 −9	30.74	20.16	−16 −5	39.01	11.96	−8 +5
11	44.32	35.79	+19 −2	32.96	29.15	+1 −11	30.85	19.86	−16 −1	39.45	11.74	−1 +7
12	43.84	35.63	+14 −7	32.73	28.87	−8 −10	30.97	19.56	−12 +3	39.90	11.52	+7 +7
13	43.36	35.47	+7 −10	32.50	28.59	−14 −8	31.11	19.26	−6 +6	40.35	11.30	+13 +6
14	42.88	35.30	−2 −11	32.28	28.31	−16 −4	31.25	18.96	+1 +7	40.82	11.09	+16 +4
15	42.42	35.13	−10 −10	32.08	28.03	−15 +1	31.41	18.66	+9 +7	41.30	10.88	+18 +1
16	41.96	34.95	−15 −6	31.88	27.74	−10 +4	31.58	18.36	+14 +5	41.79	10.68	+16 −2
17	41.50	34.77	−16 −2	31.70	27.45	−3 +7	31.76	18.06	+17 +3	42.28	10.48	+11 −5
18	41.05	34.59	−13 +2	31.53	27.16	+5 +7	31.95	17.77	+18 0	42.78	10.29	+4 −7
19	40.61	34.40	−7 +5	31.36	26.87	+12 +7	32.16	17.47	+14 −3	43.29	10.10	−4 −7
20	40.17	34.20	+1 +7	31.21	26.57	+16 +4	32.37	17.18	+9 −6	43.81	9.91	−12 −6
21	39.75	34.00	+8 +7	31.07	26.28	+18 +1	32.60	16.90	+1 −7	44.34	9.74	−19 −4
22	39.33	33.80	+14 +6	30.95	25.98	+17 −2	32.84	16.61	−7 −7	44.87	9.56	−23 0
23	38.91	33.59	+17 +3	30.83	25.68	+13 −5	33.09	16.33	−15 −5	45.41	9.39	−23 +5
24	38.51	33.37	+18 0	30.73	25.38	+6 −7	33.35	16.05	−21 −2	45.96	9.23	−19 +9
25	38.11	33.15	+15 −3	30.63	25.07	−2 −7	33.63	15.77	−23 +2	46.52	9.07	−11 +12
26	37.72	32.93	+10 −5	30.55	24.77	−10 −7	33.91	15.50	−21 +6	47.09	8.92	0 +12
27	37.34	32.70	+3 −7	30.48	24.46	−17 −4	34.21	15.22	−15 +10	47.66	8.77	+10 +10
28	36.96	32.47	−5 −7	30.42	24.15	−21 −1	34.51	14.95	−5 +11	48.23	8.62	+17 +6
29	36.60	32.23	−13 −6	30.37	23.84	−22 +3	34.83	14.68	+5 +11	48.81	8.49	+21 0
30	36.24	32.00	−19 −3	30.34	23.54	−18 +7	35.16	14.42	+14 +8	49.40	8.35	+19 −5
31	35.89	31.75	−22 0	30.31	23.23	−11 +10	35.50	14.16	+20 +3	50.00	8.23	+13 −10
32				30.30	22.92	−1 +11				50.60	8.11	+4 −12

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 56′ 0″	27.730	−27.712	−87° 56′ 20″	27.804	−27.786	−87° 56′ 30″	27.842	−27.824
10	27.767	−27.749	30	27.842	−27.824	40	27.880	−27.862

$\alpha_{1947.0} = 14^h\ 59^m\ 58^s.05$ $\delta_{1947.0} = -87°\ 56'\ 10''.16$

*) Tag der doppelten unteren Kulmination: Nov. 6.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sf) 26 G. Octantis 6^m13

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
		—	in			—	in			—	in			—	in	
	16^h40^m	86° 16′	$0^s.01$	$0''.01$	16^h40^m	86° 16′	$0^s.01$	$0''.01$	16^h40^m	86° 16′	$0^s.01$	$0''.01$	16^h40^m	86° 16′	$0^s.01$	$0''.01$
1	$16^s.94$	$25''.95$	−13	−4	$26^s.94$	$20''.65$	−6	+10	$38^s.05$	$19''.90$	−2	+11	$50^s.09$	$23''.54$	+12	−2
2	17.20	25.71	−14	0	27.32	20.55	0	+10	38.46	19.95	+4	+10	50.45	23.73	+10	−6
3	17.46	25.48	−13	+5	27.69	20.46	+6	+9	38.87	20.00	+9	+6	50.81	23.92	+7	−10
4	17.73	25.25	−9	+8	28.07	20.38	+11	+4	39.27	20.06	+12	+2	51.16	24.11	+2	−11
5	18.00	25.03	−3	+10	28.46	20.30	+13	−1	39.68	20.12	+12	−4	51.51	24.31	−2	−10
6	18.28	24.81	+4	+10	28.84	20.22	+12	−6	40.08	20.18	+9	−8	51.86	24.51	−6	−7
7	18.56	24.59	+9	+7	29.23	20.15	+9	−10	40.48	20.26	+5	−10	52.20	24.72	−8	−3
8	18.85	24.38	+13	+2	29.62	20.09	+4	−11	40.89	20.33	+1	−11	52.54	24.93	−8	+1
9	19.14	24.17	+13	−3	30.01	20.03	−1	−11	41.29	20.41	−4	−10	52.88	25.15	−6	+5
10	19.44	23.97	+11	−8	30.41	19.97	−5	−8	41.68	20.50	−7	−6	53.21	25.37	−3	+7
11	19.74	23.77	+7	−11	30.80	19.92	−7	−4	42.08	20.59	−8	−2	53.54	25.59	0	+9
12	20.04	23.57	+2	−11	31.20	19.87	−7	0	42.48	20.69	−7	+2	53.87	25.81	+4	+9
13	20.35	23.38	−2	−10	31.60	19.83	−6	+4	42.88	20.79	−5	+6	54.20	26.04	+7	+7
14	20.67	23.19	−5	−7	31.99	19.79	−3	+7	43.28	20.89	−1	+8	54.52	26.27	+8	+4
15	20.98	23.01	−7	−3	32.39	19.76	0	+8	43.67	21.00	+2	+9	54.84	26.51	+8	0
16	21.31	22.83	−7	+2	32.79	19.74	+3	+9	44.06	21.11	+5	+8	55.15	26.75	+6	−3
17	21.63	22.66	−5	+5	33.19	19.72	+6	+7	44.45	21.23	+7	+6	55.46	26.99	+3	−6
18	21.96	22.49	−2	+7	33.59	19.71	+8	+5	44.84	21.35	+8	+2	55.76	27.23	−1	−8
19	22.30	22.33	+1	+9	34.00	19.70	+8	+1	45.23	21.48	+8	−1	56.06	27.48	−6	−8
20	22.64	22.17	+4	+8	34.40	19.70	+7	−2	45.62	21.62	+6	−5	56.36	27.73	−10	−6
21	22.98	22.02	+6	+6	34.80	19.70	+4	−6	46.00	21.76	+2	−7	56.65	27.99	−12	−3
22	23.32	21.87	+8	+3	35.21	19.71	0	−8	46.38	21.90	−3	−8	56.94	28.25	−13	+2
23	23.67	21.73	+8	0	35.61	19.72	−5	−8	46.76	22.04	−7	−7	57.23	28.51	−10	+6
24	24.02	21.59	+6	−3	36.02	19.74	−9	−7	47.14	22.19	−11	−5	57.51	28.77	−5	+9
25	24.37	21.45	+3	−6	36.43	19.76	−12	−4	47.52	22.35	−13	−1	57.79	29.04	+1	+10
26	24.73	21.32	−2	−8	36.83	19.79	−13	+1	47.90	22.50	−12	+4	58.06	29.31	+6	+9
27	25.09	21.20	−7	−8	37.24	19.82	−11	+5	48.27	22.67	−9	+8	58.33	29.58	+11	+5
28	25.46	21.08	−11	−6	37.65	19.86	−7	+9	48.64	22.83	−3	+10	58.59	29.85	+13	0
29	25.82	20.96	−13	−2	38.05	19.90	−2	+11	49.01	23.00	+2	+10	58.85	30.13	+12	−5
30	26.20	20.85	−13	+3					49.37	23.18	+8	+8	59.11	30.41	+9	−9
31	26.57	20.75	−11	+7					49.73	23.36	+11	+3	59.36	30.69	+4	−11
32	26.94	20.65	−6	+10					50.09	23.54	+12	−2				

δ	sec δ	tg δ	δ	sec δ	tg δ
−86° 16′ 10″	15.369	−15.337	−86° 16′ 30″	15.392	−15.360
20	15.381	−15.348	40	15.404	−15.371

$\alpha_{1947.0} = 16^h\ 40^m\ 43^s.09$ $\delta_{1947.0} = -86°\ 16'\ 35''.39$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sf) 26 G. Octantis 6^m13

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	16^h40^m	−86° 16′	in $0^s.01$ | $0''.01$	16^h41^m	−86° 16′	in $0^s.01$ | $0''.01$	16^h40^m	−86° 16′	in $0^s.01$ | $0''.01$	16^h40^m	−86° 16′	in $0^s.01$ | $0''.01$
1	59.36	30.69	+ 4 −11	4.76	40.32	− 7 − 2	64.90	50.23	+ 1 + 8	59.91	58.05	+ 9 + 2
2	59.61	30.97	− 1 −11	4.85 4.93	40.65 40.98	− 7 + 2 − 5 + 5	64.82	50.52	+ 4 + 8	59.68	58.24	+ 8 − 2
3	59.85	31.26	− 5 − 9	5.01	41.31	− 2 + 7	64.73	50.82	+ 7 + 6	59.44	58.43	+ 5 − 5
4	60.09	31.54	− 7 − 5	5.08	41.63	+ 1 + 8	64.63	51.11	+ 8 + 4	59.20	58.61	+ 2 − 7
5	60.33	31.83	− 8 − 1	5.15	41.96	+ 5 + 8	64.53	51.40	+ 8 + 1	58.95	58.79	− 3 − 8
6	60.56	32.13	− 7 + 3	5.21	42.29	+ 7 + 6	64.43	51.69	+ 7 − 3	58.70	58.96	− 8 − 7
7	60.78	32.42	− 4 + 6	5.27	42.62	+ 8 + 3	64.31	51.98	+ 4 − 6	58.45	59.13	−12 − 5
8	61.00	32.72	− 1 + 8	5.32	42.94	+ 8 0	64.19	52.26	0 − 8	58.19	59.29	−14 − 1
9	61.22	33.02	+ 2 + 9	5.36	43.27	+ 6 − 4	64.07	52.54	− 4 − 8	57.93	59.45	−14 + 4
10	61.43	33.32	+ 5 + 8	5.40	43.60	+ 2 − 7	63.94	52.82	−10 − 7	57.67	59.60	−11 + 8
11	61.63	33.63	+ 7 + 5	5.43	43.92	− 3 − 8	63.81	53.09	−14 − 3	57.41	59.75	− 6 +11
12	61.83	33.93	+ 8 + 2	5.46	44.25	− 8 − 8	63.67	53.37	−15 + 1	57.14	59.90	0 +11
13	62.03	34.24	+ 7 − 2	5.48	44.58	−12 − 6	63.53	53.63	−13 + 6	56.87	60.03	+ 6 + 9
14	62.22	34.55	+ 4 − 5	5.50	44.90	−14 − 2	63.38	53.90	− 9 +10	56.60	60.17	+10 + 4
15	62.40	34.86	0 − 8	5.51	45.22	−14 + 3	63.23	54.16	− 3 +11	56.32	60.30	+12 − 1
16	62.58	35.17	− 4 − 8	5.51	45.54	−11 + 8	63.07	54.42	+ 4 +10	56.04	60.42	+11 − 6
17	62.76	35.48	− 9 − 7	5.51	45.86	− 6 +10	62.90	54.67	+ 9 + 7	55.76	60.54	+ 7 −10
18	62.93	35.79	−13 − 4	5.50	46.18	+ 1 +11	62.73	54.92	+12 + 2	55.47	60.65	+ 3 −12
19	63.09	36.11	−14 0	5.49	46.50	+ 7 + 9	62.56	55.17	+13 − 4	55.18	60.76	− 2 −11
20	63.25	36.43	−12 + 5	5.47	46.82	+11 + 4	62.38	55.42	+10 − 9	54.90	60.86	− 6 − 8
21	63.41	36.75	− 8 + 9	5.45	47.14	+13 − 1	62.20	55.66	+ 6 −11	54.60	60.96	− 7 − 3
22	63.56	37.07	− 2 +11	5.42	47.46	+12 − 6	62.02	55.90	+ 1 −12	54.31	61.05	− 7 + 1
23	63.71	37.39	+ 4 +10	5.38	47.77	+ 9 −10	61.83	56.13	− 3 −10	54.02	61.14	− 4 + 5
24	63.85	37.71	+10 + 7	5.34	48.08	+ 4 −12	61.63	56.36	− 6 − 6	53.72	61.22	− 1 + 7
25	63.98	38.03	+13 + 2	5.30	48.39	− 1 −11	61.43	56.58	− 7 − 2	53.42	61.29	+ 3 + 8
26	64.11	38.36	+13 − 3	5.25	48.70	− 5 − 8	61.23	56.80	− 6 + 3	53.13	61.36	+ 6 + 8
27	64.23	38.68	+11 − 8	5.19	49.01	− 7 − 4	61.02	57.02	− 3 + 6	52.82	61.42	+ 8 + 6
28	64.35	39.01	+ 7 −10	5.12	49.32	− 7 0	60.80	57.23	0 + 8	52.52	61.48	+ 9 + 3
29	64.46	39.33	+ 2 −11	5.05	49.62	− 5 + 4	60.58	57.44	+ 4 + 8	52.22	61.53	+ 9 − 1
30	64.56	39.66	− 3 −10	4.98	49.92	− 2 + 7	60.36	57.65	+ 6 + 7	51.92	61.58	+ 7 − 4
31	64.66	39.99	− 6 − 7	4.90	50.23	+ 1 + 8	60.14	57.85	+ 8 + 5	51.61	61.62	+ 3 − 7
32	64.76	40.32	− 7 − 2				59.91	58.05	+ 9 + 2	51.31	61.65	− 1 − 8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−86° 16′ 30″	15.392	−15.360	−86° 16′ 50″	15.415	−15.383	−86° 17′ 0″	15.427	−15.394
40	15.404	−15.371	60	15.427	−15.394	10	15.438	−15.406

$\alpha_{1947.0} = 16^h\ 40^m\ 43^s.09$ $\delta_{1947.0} = -86°\ 16'\ 35''.39$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sf) 26 G. Octantis $6^{m}_{\cdot}13$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$16^{h}40^{m}$	$-86°16'$	in $0^{s}_{\cdot}01$	in $0''_{\cdot}01$	$16^{h}40^{m}$	$-86°16'$	in $0^{s}_{\cdot}01$	in $0''_{\cdot}01$	$16^{h}40^{m}$	$-86°16'$	in $0^{s}_{\cdot}01$	in $0''_{\cdot}01$	$16^{h}40^{m}$	$-86°16'$	in $0^{s}_{\cdot}01$	in $0''_{\cdot}01$
	s	"			s	"			s	"			s	"		
1	51.31	61.65	−1	−8	42.29	59.98	−12	−4	35.72	53.38	−6	+10	34.57	44.42	+9	+7
2	51.00	61.68	−6	−8	42.02	59.83	−13	0	35.59	53.11	0	+11	*)34.64	44.11	+12	+2
3	50.70	61.70	−10	−6	41.75	59.68	−12	+5	35.46	52.83	+6	+9	34.71	43.81	+12	−4
4	50.39	61.72	−13	−2	41.49	59.53	−9	+9	35.34	52.55	+10	+5	34.79	43.50	+10	−8
5	50.08	61.73	−14	+2	41.22	59.37	−4	+11	35.23	52.27	+12	0	34.88	43.20	+5	−11
6	49.77	61.73	−12	+7	40.97	59.20	+2	+11	35.12	51.98	+11	−5	34.98	42.90	0	−11
7	49.46	61.73	−8	+10	40.71	59.03	+7	+8	35.02	51.69	+8	−9	35.08	42.60	−4	−9
8	49.15	61.72	−2	+11	40.45	58.86	+11	+3	34.92	51.41	+3	−11	35.19	42.29	−7	−6
9	48.84	61.71	+4	+10	40.20	58.68	+11	−2	34.83	51.11	−2	−11	35.30	41.99	−8	−1
10	48.52	61.69	+9	+7	39.96	58.50	+9	−7	34.75	50.82	−6	−8	35.42	41.69	−7	+3
11	48.21	61.67	+11	+1	39.71	58.31	+6	−10	34.68	50.53	−8	−4	35.55	41.40	−4	+6
12	47.91	61.64	+11	−4	39.47	58.11	+1	−11	34.61	50.23	−8	0	35.68	41.10	0	+8
13	47.60	61.60	+8	−8	39.24	57.92	−4	−10	34.55	49.93	−6	+4	35.82	40.81	+4	+8
14	47.29	61.56	+4	−11	39.01	57.71	−7	−7	34.49	49.64	−3	+7	35.97	40.52	+7	+7
15	46.99	61.51	−1	−11	38.79	57.50	−8	−2	34.44	49.33	+1	+9	36.12	40.23	+9	+4
16	46.68	61.46	−5	−9	38.57	57.29	−7	+2	34.40	49.03	+5	+8	36.28	39.94	+9	+1
17	46.38	61.40	−7	−5	38.35	57.07	−4	+6	34.36	48.73	+8	+6	36.44	39.65	+8	−2
18	46.08	61.34	−8	0	38.14	56.85	−1	+8	34.33	48.42	+9	+3	36.61	39.37	+5	−5
19	45.77	61.27	−6	+4	37.93	56.63	+3	+9	34.31	48.12	+9	0	36.79	39.09	+1	−8
20	45.47	61.19	−3	+7	37.73	56.40	+7	+8	34.29	47.82	+7	−4	36.97	38.81	−4	−9
21	45.17	61.11	+1	+8	37.53	56.17	+9	+5	34.28	47.51	+4	−7	37.16	38.54	−9	−7
22	44.88	61.02	+5	+8	37.34	55.93	+10	+2	34.28	47.20	−1	−8	37.35	38.26	−13	−4
23	44.58	60.92	+8	+7	37.15	55.69	+9	−2	34.29	46.89	−6	−8	37.55	37.99	−15	0
24	44.29	60.82	+9	+4	36.97	55.45	+6	−5	34.30	46.58	−10	−6	37.76	37.73	−14	+4
25	44.00	60.72	+9	0	36.80	55.20	+2	−7	34.32	46.27	−13	−3	37.98	37.46	−11	+9
26	43.71	60.61	+8	−3	36.63	54.95	−2	−8	34.35	45.96	−14	+2	38.20	37.20	−6	+11
27	43.42	60.49	+5	−6	36.46	54.69	−7	−8	34.38	45.65	−12	+6	38.42	36.94	+1	+12
28	43.13	60.37	+1	−8	36.30	54.43	−11	−5	34.42	45.34	−8	+10	38.65	36.68	+6	+9
29	42.85	60.25	−4	−9	36.14	54.17	−13	−1	34.46	45.03	−2	+11	38.89	36.43	+11	+4
30	42.57	60.11	−8	−7	36.00	53.91	−13	+3	34.51	44.72	+4	+10	39.13	36.18	+13	−1
31	42.29	59.98	−12	−4	35.85	53.65	−10	+7	34.57	44.42	+9	+7	39.38	35.94	+11	−6
32					35.72	53.38	−6	+10					39.63	35.70	+8	−10

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−86° 16′ 30″	15.392	−15.360	−86° 16′ 50″	15.415	−15.383	−86° 17′ 0″	15.427	−15.394
40	15.404	−15.371	60	15.427	−15.394	10	15.438	−15.406

$\alpha_{1947.0} = 16^{h}\ 40^{m}\ 43^{s}_{\cdot}09$ $\delta_{1947.0} = -86°\ 16'\ 35''_{\cdot}39$

*) Tag der doppelten unteren Kulmination: Dez. 2.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sg) χ Octantis $5^{m}.22$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
		—	in			—	in			—	in			—	in	
	18^h23^m	$87°\ 39'$	$0^s.01$	$0''.01$	18^h23^m	$87°\ 39'$	$0^s.01$	$0''.01$	18^h23^m	$87°\ 39'$	$0^s.01$	$0''.01$	18^h24^m	$87°\ 39'$	$0^s.01$	$0''.01$
	s	"			s	"			s	"			s	"		
1	17.20	18.20	−15	−9	27.43	9.26	−15	+8	42.58	3.95	−9	+9	2.26	2.23	+18	+3
2	17.39	17.88	−20	−5	27.89	9.01	−6	+10	43.19	3.83	−1	+10	2.90	2.25	+19	−2
3	17.59	17.56	−21	0	28.36	8.77	+3	+10	43.80	3.71	+8	+9	3.55	2.28	+16	−7
4	17.80	17.24	−18	+5	28.83	8.53	+12	+8	44.41	3.59	+15	+6	4.18	2.31	+10	−9
5	18.02	16.93	−11	+9	29.32	8.30	+18	+4	45.03	3.47	+19	+1	4.82	2.34	+3	−10
6	18.25	16.62	−1	+11	29.81	8.07	+20	−1	45.65	3.36	+18	−4	5.46	2.38	−4	−9
7	18.49	16.31	+9	+10	30.30	7.85	+18	−6	46.27	3.26	+14	−8	6.09	2.43	−9	−6
8	18.74	16.00	+16	+6	30.80	7.63	+13	−9	46.89	3.16	+8	−10	6.72	2.48	−11	−2
9	19.00	15.69	+21	+1	31.31	7.41	+6	−10	47.52	3.07	+1	−10	7.36	2.53	−11	+2
10	19.27	15.38	+21	−3	31.83	7.20	−1	−9	48.14	2.98	−5	−8	7.98	2.59	−9	+6
11	19.55	15.08	+17	−8	32.35	6.99	−7	−6	48.78	2.90	−10	−4	8.61	2.66	−5	+8
12	19.84	14.78	+11	−10	32.87	6.79	−10	−3	49.41	2.82	−11	0	9.24	2.73	0	+9
13	20.14	14.47	+3	−10	33.40	6.58	−11	+2	50.04	2.74	−11	+4	9.86	2.80	+5	+9
14	20.44	14.18	−3	−8	33.94	6.39	−9	+5	50.67	2.67	−8	+7	10.49	2.87	+9	+6
15	20.76	13.88	−8	−5	34.48	6.20	−6	+8	51.31	2.61	−3	+9	11.10	2.95	+11	+3
16	21.08	13.59	−10	−1	35.03	6.01	−1	+9	51.95	2.55	+2	+9	11.72	3.04	+11	−1
17	21.41	13.30	−10	+3	35.58	5.82	+4	+9	52.59	2.49	+7	+8	12.33	3.13	+9	−5
18	21.76	13.01	−8	+6	36.14	5.65	+8	+7	53.23	2.44	+10	+5	12.94	3.23	+4	−8
19	22.11	12.72	−4	+9	36.71	5.47	+11	+4	53.87	2.40	+12	+2	13.54	3.33	−3	−10
20	22.47	12.44	0	+9	37.28	5.30	+11	0	54.51	2.36	+11	−2	14.14	3.44	−10	−9
21	22.84	12.16	+5	+8	37.85	5.13	+10	−4	55.16	2.32	+7	−6	14.74	3.55	−16	−7
22	23.22	11.88	+9	+6	38.43	4.97	+5	−7	55.81	2.29	+2	−9	15.34	3.66	−19	−3
23	23.60	11.60	+11	+3	39.01	4.81	−1	−9	56.46	2.26	−5	−10	15.93	3.78	−18	+2
24	23.99	11.33	+10	−1	39.59	4.65	−8	−9	57.10	2.24	−12	−8	16.53	3.90	−13	+7
25	24.39	11.06	+8	−5	40.18	4.50	−15	−8	57.75	2.22	−17	−5	17.11	4.03	−6	+10
26	24.80	10.79	+3	−8	40.77	4.36	−19	−4	58.39	2.20	−19	−1	17.69	4.16	+3	+10
27	25.22	10.53	−4	−10	41.37	4.22	−20	+1	59.04	2.20	−17	+4	18.27	4.30	+12	+9
28	25.64	10.27	−12	−9	41.97	4.08	−16	+6	59.68	2.19	−11	+8	18.85	4.44	+18	+5
29	26.08	10.01	−18	−6	42.58	3.95	−9	+9	60.33	2.19	−3	+10	19.41	4.58	+20	0
30	26.52	9.76	−21	−2					60.97	2.20	+6	+10	19.98	4.73	+18	−5
31	26.97	9.51	−20	+3					61.62	2.21	+13	+7	20.54	4.88	+13	−9
32	27.43	9.26	−15	+8					62.26	2.23	+18	+3				

δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 39′ 0″	24.388	−24.368	−87° 39′ 10″	24.417	−24.396
10	24.417	−24.396	20	24.446	−24.425

$\alpha_{1947.0} = 18^h\ 24^m\ 0^s.94$ $\delta_{1947.0} = -87°\ 39'\ 16''.08$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sg) χ Octantis 5ᵐ.22

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	18^h24^m	−87° 39′	in 0.01ˢ 0.01″	18^h24^m	−87° 39′	in 0.01ˢ 0.01″	18^h24^m	−87° 39′	in 0.01ˢ 0.01″	18^h24^m	−87° 39′	in 0.01ˢ 0.01″
	s	″		s	″		s	″		s	″	
1	20.54	4.88	+13 −9	35.10	11.47	−9 −5	42.39	20.56	−4 +8	40.85	29.94	+11 +5
2	21.10	5.04	+6 −10	35.46	11.73	−11 −1	42.48	20.87	0 +9	40.65	30.22	+12 +1
3	21.65	5.20	−1 −10	35.82	12.00	−10 +3	42.56	21.18	+5 +8	40.45	30.49	+11 −3
4	22.20	5.36	−7 −7	36.16	12.27	−8 +6	42.63	21.50	+9 +7	40.24	30.77	+7 −6
5	22.74	5.53	−11 −3	36.50	12.54	−4 +8	42.70	21.81	+11 +4	40.01	31.04	+1 −9
6	23.28	5.70	−12 +1	36.83	12.82	+1 +9	42.75	22.12	+11 0	39.78	31.30	−6 −10
7	23.81	5.88	−10 +4	37.15	13.09	+5 +8	42.79	22.43	+9 −4	39.54	31.57	−14 −9
8	24.33	6.06	−7 +7	37.46	13.37	+9 +6	42.83	22.75	+4 −8	39.29	31.83	−20 −6
9	24.85	6.25	−2 +9	37.76	13.65	+11 +3	42.85	23.06	−2 −10	39.04	32.09	−22 −1
10	25.36	6.44	+3 +9	38.06	13.94	+10 −2	42.87	23.37	−10 −10	38.77	32.35	−21 +4
11	25.87	6.63	+7 +7	38.35	14.22	+7 −6	42.88	23.68	−17 −8	38.50	32.60	−15 +8
12	26.38	6.82	+10 +5	38.63	14.51	+1 −9	42.87	24.00	−22 −4	38.23	32.85	−7 +11
13	26.88	7.02	+11 +1	38.91	14.80	−6 −10	42.86	24.31	−22 +1	37.94	33.10	+3 +10
14	27.37	7.22	+9 −3	39.17	15.09	−13 −9	42.84	24.61	−19 +6	37.64	33.34	+12 +8
15	27.85	7.43	+5 −7	39.42	15.38	−19 −7	42.81	24.92	−11 +10	37.34	33.58	+18 +3
16	28.33	7.64	−1 −10	39.67	15.68	−22 −2	42.76	25.23	−1 +11	37.03	33.81	+19 −2
17	28.81	7.85	−8 −10	39.91	15.97	−20 +3	42.71	25.53	+8 +10	36.71	34.04	+17 −7
18	29.27	8.07	−15 −8	40.13	16.27	−14 +8	42.65	25.84	+16 +6	36.38	34.26	+11 −10
19	29.73	8.29	−19 −4	40.35	16.57	−6 +11	42.58	26.14	+20 +1	36.05	34.48	+4 −11
20	30.18	8.52	−20 0	40.56	16.87	+4 +11	42.50	26.44	+20 −4	35.71	34.70	−3 −9
21	30.63	8.75	−17 +5	40.76	17.17	+13 +8	42.41	26.75	+15 −8	35.36	34.91	−8 −5
22	31.07	8.98	−10 +9	40.95	17.48	+19 +4	42.32	27.04	+9 −10	35.01	35.12	−10 −1
23	31.51	9.21	0 +11	41.14	17.78	+21 −1	42.21	27.34	+1 −10	34.65	35.33	−9 +3
24	31.94	9.45	+9 +10	41.31	18.08	+19 −6	42.09	27.64	−5 −8	34.28	35.53	−6 +7
25	32.36	9.69	+17 +7	41.48	18.39	+13 −10	41.97	27.93	−9 −4	33.91	35.73	−2 +9
26	32.77	9.94	+21 +2	41.64	18.70	+6 −10	41.84	28.22	−10 +1	33.53	35.92	+3 +9
27	33.18	10.18	+20 −3	41.78	19.01	−1 −9	41.69	28.52	−8 +5	33.14	36.11	+8 +8
28	33.58	10.44	+16 −7	{41.92 {42.05	19.32 19.63	−7 −6} −10 −2}	41.54	28.80	−5 +7	32.75	36.29	+11 +6
29	33.97	10.69	+10 −10	42.17	19.94	−10 +2	41.38	29.09	0 +9	32.35	36.47	+13 +2
30	34.35	10.95	+2 −10	42.28	20.25	−8 +6	41.21	29.38	+4 +9	31.95	36.64	+12 −1
31	34.73	11.21	−4 −8	42.39	20.56	−4 +8	41.03	29.66	+8 +7	31.54	36.81	+9 −5
32	35.10	11.47	−9 −5				40.85	29.94	+11 +5	31.13	36.98	+4 −8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 39′ 0″	24.388	−24.368	−87° 39′ 20″	24.446	−24.425	−87° 39′ 30″	24.475	−24.454
10	24.417	−24.396	30	24.475	−24.454	40	24.504	−24.483

$\alpha_{1947.0} = 18^h\ 24^m\ 0^s.94$ $\delta_{1947.0} = -87°\ 39'\ 16''.08$

Sg) χ Octantis 5^m22

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	18^h24^m	$-87°39'$	in $0^s.01$ | $0''.01$	18^h24^m	$-87°39'$	in $0^s.01$ | $0''.01$	18^h23^m	$-87°39'$	in $0^s.01$ | $0''.01$	18^h23^m	$-87°39'$	in $0^s.01$ | $0''.01$
1	31.13	36.98	+4 −8	16.98	39.38	−14 −8	62.69	36.29	−14 +8	54.42	28.78	+8 +10
2	30.71	37.14	−3 −10	16.49	39.37	−19 −4	62.30	36.11	−6 +10	54.29	28.48	+16 +6
3	30.29	37.29	−10 −9	15.99	39.36	−20 0	61.92	35.91	+3 +11	54.16	28.17	+20 +1
4	29.86	37.44	−17 −7	15.50	39.33	−18 +5	61.54	35.71	+11 +8	54.05	27.86	+19 −4
5	29.42	37.59	−21 −3	15.00	39.30	−12 +9	61.17	35.51	+17 +4	53.95	27.55	+15 −8
6	28.98	37.73	−21 +2	14.51	39.26	−4 +11	60.81	35.30	+19 −1	53.86	27.24	+8 −10
7	28.54	37.86	−17 +7	14.02	39.22	+5 +10	60.45	35.09	+17 −6	53.78	26.93	0 −10
8	28.09	37.99	−10 +10	13.53	39.17	+13 +7	60.10	34.87	+11 −9	53.70	26.62	−6 −8
9	27.64	38.12	−1 +11	13.04	39.12	+17 +2	59.76	34.65	+4 −11	53.64	26.31	−10 −4
10	27.18	38.23	+8 +9	12.55	39.06	+18 −3	59.43	34.42	−3 −10	53.59	25.99	−11 +1
11	26.72	38.35	+15 +5	12.06	38.99	+14 −7	59.10	34.19	−9 −6	53.55	25.67	−9 +5
12	26.26	38.45	+18 0	11.58	38.92	+8 −10	58.78	33.95	−11 −2	53.52	25.35	−5 +8
13	25.79	38.55	+17 −5	11.10	38.85	+1 −10	58.48	33.71	−11 +2	53.50	25.03	0 +9
14	25.32	38.65	+13 −9	10.62	38.76	−6 −9	58.18	33.47	−8 +6	53.49	24.71	+5 +9
15	24.85	38.74	+6 −11	10.15	38.68	−10 −5	57.88	33.22	−3 +9	53.49	24.39	+10 +7
16	24.37	38.82	−1 −10	9.68	38.58	−11 0	57.60	32.97	+2 +9	53.50	24.06	+12 +4
17	23.89	38.90	−7 −7	9.21	38.48	−10 +4	57.32	32.71	+7 +9	53.52	23.74	+13 +1
18	23.41	38.97	−10 −3	8.74	38.37	−6 +7	57.06	32.45	+11 +6	53.55	23.41	+11 −3
19	22.92	39.04	−11 +2	8.28	38.26	−1 +9	56.80	32.19	+13 +3	53.59	23.09	+7 −7
20	22.44	39.10	−8 +6	7.82	38.15	+4 +9	56.55	31.92	+12 −1	53.65	22.76	0 −9
21	21.95	39.15	−4 +8	7.36	38.02	+9 +8	56.31	31.65	+10 −5	53.71	22.43	−7 −10
22	21.46	39.20	+1 +10	6.91	37.89	+12 +5	56.08	31.38	+4 −8	53.79	22.11	−15 −9
23	20.97	39.25	+6 +9	6.47	37.76	+13 +1	55.86	31.10	−3 −10	53.87	21.78	−20 −6
24	20.47	39.28	+11 +7	6.03	37.62	+12 −2	55.65	30.82	−10 −10	53.97	21.45	−23 −1
25	19.98	39.32	+13 +4	5.59	37.47	+8 −6	55.44	30.54	−17 −8	54.07	21.13	−21 +4
26	19.48	39.34	+13 0	5.16	37.32	+2 −9	55.25	30.25	−21 −3	54.19	20.80	−15 +9
27	18.98	39.36	+11 −4	4.74	37.16	−5 −10	55.06	29.96	−21 +1	54.32	20.47	−6 +11
28	18.48	39.38	+6 −7	4.32	37.00	−12 −9	54.89	29.67	−17 +6	*)54.45	20.15	+4 +11
29	17.98	39.39	0 −9	3.90	36.83	−17 −6	54.72	29.38	−10 +10	54.60	19.82	+13 +8
30	17.48	39.39	−7 −10	3.49	36.66	−20 −2	54.57	29.08	−1 +11	54.76	19.50	+19 +3
31	16.98	39.38	−14 −8	3.09	36.48	−19 +3	54.42	28.78	+8 +10	54.93	19.18	+20 −2
32				2.69	36.29	−14 +8				55.11	18.85	+17 −7

δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 39′ 10″	24.417	−24.396	−87° 39′ 30″	24.475	−24.454
20	24.446	−24.425	40	24.504	−24.483

$\alpha_{1947.0} = 18^h\ 24^m\ 0^s.94$ $\delta_{1947.0} = -87°\ 39'\ 16''.08$

*) Tag der doppelten unteren Kulmination: Dez. 28.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sh) σ Octantis $5^{m}.48$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
	$20^h 9^m$	$-89° 8'$	in $0^s.01$	in $0''.01$	$20^h 9^m$	$-89° 8'$	in $0^s.01$	in $0''.01$	$20^h 10^m$	$-89° 8'$	in $0^s.01$	in $0''.01$	$20^h 10^m$	$-89° 8'$	in $0^s.01$	in $0''.01$
	s	"			s	"			s	"			s	"		
1	27.84	65.18	−19	−11	34.40	54.35	−51	+ 3	0.61	45.45	−40	+ 6	45.21	38.53	+38	+ 7
2	27.64	64.84	−38	− 9	35.03	54.01	−35	+ 7	1.84	45.17	−21	+ 9	46.82	38.38	+49	+ 2
3	27.47	64.50	−49	− 5	35.69	53.67	−12	+10	3.09	44.89	+ 3	+10	48.43	38.23	+50	− 2
4	27.33	64.16	−51	0	36.37	53.33	+14	+10	4.35	44.62	+25	+ 9	50.05	38.08	+42	− 6
5	27.22	63.82	−42	+ 5	37.07	52.99	+36	+ 8	5.63	44.35	+43	+ 5	51.68	37.94	+27	− 8
6	27.13	63.47	−23	+ 9	37.80	52.65	+51	+ 4	6.92	44.09	+52	+ 1	53.31	37.80	+ 8	− 9
7	27.07	63.12	+ 3	+11	38.55	52.31	+54	− 1	8.23	43.83	+49	− 4	54.95	37.67	−10	− 7
8	27.04	62.77	+27	+10	39.33	51.98	+48	− 5	9.56	43.57	+38	− 7	56.60	37.54	−24	− 4
9	27.03	62.43	+47	+ 6	40.13	51.64	+34	− 8	10.90	43.31	+21	− 9	58.25	37.42	−32	− 1
10	27.06	62.08	+56	+ 2	40.95	51.31	+15	− 9	12.26	43.06	+ 2	− 8	59.91	37.30	−33	+ 3
11	27.11	61.73	+55	− 3	41.80	50.98	− 4	− 7	13.63	42.81	−15	− 6	61.57	37.18	−28	+ 6
12	27.19	61.38	+44	− 6	42.66	50.65	−19	− 5	15.01	42.57	−27	− 3	63.24	37.07	−19	+ 8
13	27.29	61.03	+27	− 8	43.55	50.33	−29	− 1	16.41	42.33	−32	+ 1	64.90	36.97	− 6	+ 9
14	27.42	60.67	+ 7	− 8	44.47	50.00	−32	+ 3	17.82	42.09	−32	+ 5	66.57	36.87	+ 8	+ 8
15	27.58	60.32	−11	− 6	45.40	49.68	−29	+ 6	19.25	41.86	−25	+ 7	68.25	36.78	+20	+ 5
16	27.77	59.97	−24	− 3	46.36	49.36	−20	+ 8	20.69	41.63	−14	+ 9	69.92	36.69	+29	+ 2
17	27.99	59.62	−30	0	47.34	49.05	− 8	+ 9	22.14	41.40	0	+ 9	71.60	36.61	+30	− 3
18	28.23	59.27	−31	+ 4	48.33	48.73	+ 6	+ 8	23.60	41.18	+14	+ 7	73.28	36.53	+25	− 7
19	28.50	58.91	−27	+ 7	49.35	48.42	+17	+ 6	25.08	40.96	+25	+ 4	74.96	36.46	+12	−10
20	28.80	58.56	−17	+ 8	50.39	48.11	+27	+ 3	26.56	40.75	+31	0	76.64	36.39	− 5	−11
21	29.12	58.21	− 4	+ 8	51.45	47.80	+31	− 1	28.06	40.54	+30	− 4	78.33	36.32	−24	−10
22	29.47	57.86	+ 9	+ 7	52.53	47.50	+27	− 5	29.57	40.34	+21	− 8	80.01	36.26	−40	− 7
23	*)29.85	57.50	+20	+ 5	53.62	47.20	+16	− 9	31.09	40.14	+ 6	−10	81.70	36.21	−47	− 2
24	30.25	57.15	+27	+ 1	54.74	46.90	− 1	−11	32.62	39.94	−12	−11	83.38	36.16	−45	+ 3
25	30.68	56.79	+29	− 3	55.88	46.60	−20	−10	34.17	39.75	−31	− 9	85.07	36.11	−33	+ 8
26	31.13	56.44	+22	− 7	57.04	46.31	−38	− 8	35.72	39.56	−44	− 5	86.75	36.07	−12	+10
27	31.61	56.09	+ 8	−10	58.21	46.02	−48	− 4	37.28	39.38	−48	0	88.43	36.04	+11	+11
28	32.12	55.74	−10	−11	59.40	45.73	−49	+ 1	38.85	39.20	−43	+ 5	90.11	36.01	+33	+ 8
29	32.65	55.39	−29	−10	60.61	45.45	−40	+ 6	40.43	39.03	−27	+ 9	91.78	35.98	+47	+ 5
30	33.21	55.04	−45	− 7					42.01	38.86	− 5	+10	93.46	35.96	+53	0
31	33.79	54.70	−52	− 2					43.61	38.69	+18	+10	95.13	35.94	+48	− 5
32	34.40	54.35	−51	+ 3					45.21	38.53	+38	+ 7				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−89° 8′ 30″	66.755	−66.747	−89° 8′ 50″	67.190	−67.182	−89° 9′ 0″	67.409	−67.402
40	66.972	−66.964	60	67.409	−67.402	10	67.630	−67.623

$\alpha_{1947.0} = 20^h\ 11^m\ 10^s.10$ $\delta_{1947.0} = -89°\ 8'\ 51''.55$

*) Tag der doppelten unteren Kulmination: Jan. 23.

Sh) σ Octantis $5^m.48$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$20^h 11^m$	−89° 8′	in $0.^s01$	in $0.''01$	$20^h 12^m$	−89° 8′	in $0.^s01$	in $0.''01$	$20^h 12^m$	−89° 8′	in $0.^s01$	in $0.''01$	$20^h 13^m$	−89° 8′	in $0.^s01$	in $0.''01$
	s	″			s	″			s	″			s	″		
1	35.13	35.94	+48	−5	23.88	37.94	−13	−6	59.66	43.93	−30	+3	15.15	53.14	+17	+7
2	36.80	35.93	+34	−8	25.29	38.08	−25	−3	59.94	44.18	−26	+6	15.23	53.44	+26	+4
3	38.47	35.92	−16	−9	26.69	38.22	−32	+1	60.79	44.44	−17	+8	15.29	53.75	+31	0
4	40.13	35.92	−3	−8	28.08	38.37	−31	+4	61.61	44.70	−5	+9	15.32	54.06	+28	−4
5	41.79	35.93	−19	−5	29.45	38.52	−25	+7	62.42	44.97	+7	+8	15.32	54.36	+19	−8
6	43.45	35.94	−29	−2	30.81	38.68	−15	+8	63.20	45.24	+19	+6	15.30	54.67	+4	−10
7	45.10	35.95	−33	+2	32.15	38.84	−3	+9	63.96	45.51	+26	+3	15.25	54.97	−16	−11
8	46.75	35.97	−31	+5	33.47	39.01	+10	+7	64.70	45.78	+29	−2	15.18	55.28	−36	−10
9	48.39	36.00	−23	+8	34.78	39.18	+21	+6	65.42	46.05	+25	−6	15.08	55.58	−50	−6
10	50.02	36.03	−12	+9	36.07	39.36	+28	+1	66.11	46.33	+13	−9	14.95	55.89	−57	−1
11	51.65	36.07	+2	+8	37.35	39.54	+29	−4	66.78	46.61	−5	−11	14.79	56.19	−52	+4
12	53.28	36.11	+15	+6	38.61	39.72	+21	−8	67.42	46.89	−25	−11	14.61	56.50	−36	+8
13	54.89	36.16	+25	+3	39.85	39.91	+6	−11	68.04	47.17	−44	−9	14.40	56.80	−13	+10
14	56.50	36.21	+29	−1	41.08	40.10	−13	−12	68.64	47.45	−54	−4	14.17	57.10	+14	+10
15	58.11	36.26	+27	−5	42.29	40.30	−32	−11	69.21	47.74	−56	+1	13.91	57.41	+36	+7
16	59.70	36.32	+17	−9	43.48	40.50	−48	−7	69.75	48.03	−45	+6	13.62	57.71	+50	+3
17	61.28	36.39	0	−11	44.66	40.70	−54	−2	70.27	48.32	−24	+9	13.31	58.00	+54	−2
18	62.86	36.46	−19	−11	45.81	40.91	−49	+4	70.77	48.61	+1	+11	12.97	58.30	+46	−6
19	64.43	36.53	−37	−9	46.95	41.12	−34	+8	71.24	48.90	+28	+9	12.61	58.59	+28	−9
20	65.99	36.61	−49	−4	48.07	41.34	−10	+11	71.69	49.20	+47	+6	12.22	58.89	+10	−9
21	67.54	36.69	−50	+1	49.17	41.56	+17	+11	72.11	49.50	+52	+1	11.81	59.18	−9	−7
22	69.08	36.78	−41	+6	50.25	41.78	+39	+8	72.51	49.79	+52	−4	11.37	59.46	−22	−3
23	70.61	36.88	−21	+10	51.32	42.01	+53	+4	72.88	50.09	+42	−7	10.90	59.75	−29	+1
24	72.13	36.98	+3	+11	52.36	42.24	+57	−1	73.22	50.40	+23	−8	10.41	60.03	−28	+5
25	73.64	37.08	+27	+10	53.38	42.47	+50	−5	73.54	50.70	+3	−8	9.89	60.32	−21	+8
26	75.14	37.19	+46	+6	54.38	42.70	+35	−8	{73.83 {74.10	51.00 51.31	−14 −25	−5} −2}	9.35	60.60	−10	+9
27	76.63	37.30	+55	+2	55.36	42.94	+14	−9	74.34	51.61	−29	+2	8.79	60.87	+3	+9
28	78.10	37.42	+53	−3	56.32	43.18	−5	−7	74.55	51.92	−26	+6	8.20	61.15	+15	+8
29	79.56	37.54	+42	−7	57.26	43.43	−20	−4	74.74	52.22	−18	+8	7.59	61.42	+26	+5
30	81.01	37.67	+25	−8	58.17	43.68	−28	0	74.90	52.53	−7	+9	6.95	61.69	+31	+2
31	82.45	37.80	+5	−8	59.06	43.93	−30	+3	75.04	52.83	+5	+9	6.29	61.96	+32	−3
32	83.88	37.94	−13	−6					75.15	53.14	+17	+7	5.60	62.23	+25	−6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−89° 8′ 30″	66.755	−66.747	−89° 8′ 50″	67.190	−67.182	−89° 9′ 0″	67.409	−67.402
40	66.972	−66.964	60	67.409	−67.402	10	67.630	−67.623

$\alpha_{1947.0} = 20^h\ 11^m\ 10.^s10$ $\delta_{1947.0} = -89°\ 8'\ 51.''55$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sh) σ Octantis $5^{m}.48$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	$20^{h}12^{m}$	$-89° 9'$	in 0.01^{s}	in $0.01''$	$20^{h}11^{m}$	$-89° 9'$	in 0.01^{s}	in $0.01''$	$20^{h}11^{m}$	$-89° 9'$	in 0.01^{s}	in $0.01''$	$20^{h}10^{m}$	$-89° 8'$	in 0.01^{s}	in $0.01''$
	s	"			s	"			s	"			s	"		
1	65.60	2.23	+25	−6	95.55	8.35	−17	−11	53.61	9.58	−49	+4	77.24	65.14	+2	+11
2	64.89	2.49	+11	−9	94.30	8.48	−36	−8	52.24	9.52	−35	+8	76.27	64.91	+26	+9
3	64.16	2.75	−7	−11	93.03	8.60	−48	−5	50.88	9.45	−14	+10	75.32	64.67	+45	+6
4	63.40	3.01	−27	−10	91.75	8.72	−52	0	49.53	9.38	+10	+10	74.39	64.43	+53	+1
5	62.62	3.26	−43	−8	90.47	8.83	−46	+5	48.18	9.30	+32	+8	73.48	64.18	+51	−4
6	61.82	3.51	−53	−3	89.17	8.94	−30	+9	46.84	9.21	+47	+4	72.59	63.93	+40	−8
7	61.00	3.75	−53	+2	87.86	9.04	−7	+10	45.51	9.12	+51	−1	71.73	63.67	+21	−9
8	60.15	3.99	−43	+6	86.54	9.14	+17	+9	44.18	9.02	+45	−6	70.88	63.41	0	−8
9	59.29	4.23	−23	+9	85.22	9.23	+37	+6	42.87	8.92	+30	−8	70.06	63.15	−17	−6
10	58.40	4.46	+2	+10	83.88	9.31	+48	+1	41.56	8.81	+11	−9	69.27	62.88	−28	−2
11	57.50	4.69	+25	+8	82.54	9.39	+49	−3	40.27	8.69	−8	−8	68.49	62.61	−31	+2
12	56.57	4.92	+44	+4	81.19	9.46	+39	−7	38.98	8.57	−23	−5	67.74	62.33	−27	+6
13	55.62	5.14	+51	0	79.83	9.52	+22	−9	37.71	8.44	−30	−1	67.01	62.05	−18	+9
14	54.66	5.36	+48	−5	78.47	9.58	+3	−9	36.45	8.30	−31	+3	66.31	61.76	−4	+9
15	53.67	5.57	+35	−8	77.10	9.63	−14	−7	35.20	8.16	−25	+7	65.63	61.47	+8	+9
16	52.67	5.78	+16	−9	75.73	9.68	−27	−3	33.96	8.01	−14	+9	64.97	61.18	+21	+7
17	51.64	5.99	−3	−8	74.36	9.72	−32	+1	32.74	7.86	−1	+10	64.34	60.88	+29	+4
18	50.60	6.19	−19	−5	72.98	9.75	−29	+5	31.53	7.70	+13	+9	63.73	60.58	+33	0
19	49.54	6.39	−29	−1	71.60	9.78	−22	+8	30.33	7.54	+25	+6	63.15	60.28	+30	−5
20	48.46	6.58	−31	+3	70.21	9.80	−8	+9	29.15	7.37	+32	+2	62.60	59.97	+18	−9
21	47.36	6.77	−26	+7	68.83	9.82	+6	+9	27.98	7.19	+32	−2	62.07	59.66	+2	−11
22	46.25	6.95	−15	+9	67.44	9.83	+19	+8	26.83	7.01	+26	−6	61.57	59.35	−18	−12
23	45.12	7.13	−2	+10	66.05	9.83	+29	+4	25.70	6.82	+13	−10	61.09	59.03	−37	−10
24	43.98	7.30	+12	+9	64.66	9.83	+33	+1	24.58	6.63	−5	−11	60.64	58.71	−52	−6
25	42.82	7.47	+24	+6	63.28	9.82	+31	−4	23.48	6.43	−25	−11	60.22	58.39	−58	−1
26	41.64	7.63	+31	+3	61.89	9.80	+22	−8	22.39	6.23	−42	−8	59.82	58.07	−52	+4
27	40.45	7.78	+33	−1	60.50	9.78	+7	−10	21.32	6.02	−53	−4	59.45	57.74	−35	+9
28	39.24	7.93	+29	−5	59.11	9.75	−11	−11	20.28	5.81	−53	+1	59.11	57.42	−11	+11
29	38.03	8.08	+18	−9	57.73	9.72	−30	−10	19.25	5.59	−42	+6	58.79	57.09	+16	+10
30	36.80	8.22	+2	−11	56.35	9.68	−45	−6	18.23	5.37	−23	+10	58.50	56.75	+38	+7
31	35.55	8.35	−17	−11	54.98	9.63	−52	−2	17.24	5.14	+2	+11	58.23	56.42	+52	+3
32					53.61	9.58	−49	+4					57.99	56.08	+55	−2

δ	sec δ	tg δ	δ	sec δ	tg δ
−89° 8′ 50″	67.190	−67.182	−89° 9′ 0″	67.409	−67.402
60	67.409	−67.402	10	67.630	−67.623

$\alpha_{1947.0} = 20^{h}\ 11^{m}\ 10^{s}.10$ $\delta_{1947.0} = -89°\ 8'\ 51''.55$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Si) β Octantis $4^m\!.34$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder in		Februar AR.	Februar Dekl.	Februar ☾ Glieder in		März AR.	März Dekl.	März ☾ Glieder in		April AR.	April Dekl.	April ☾ Glieder in	
	22^h40^m	—81° 39′	$0^s\!.01$	$0''\!.01$	22^h40^m	—81° 39′	$0^s\!.01$	$0''\!.01$	22^h40^m	—81° 39′	$0^s\!.01$	$0''\!.01$	22^h40^m	—81° 39′	$0^s\!.01$	$0''\!.01$
1	$40^s\!.80$	$62''\!.06$	0	−12	$38^s\!.56$	$53''\!.26$	−6	−3	$38^s\!.37$	$43''\!.06$	−5	0	$40^s\!.25$	$31''\!.67$	+3	+10
2	40.70	61.84	−2	−12	38.52	52.92	−5	+2	38.40	42.68	−4	+5	40.34	31.33	+5	+8
3	40.60	61.62	−4	−10	38.48	52.58	−3	+7	*)38.43	42.30	−2	+9	40.44	30.99	+6	+5
4	40.50	61.39	−6	−6	38.45	52.24	0	+10	38.46	41.92	+1	+10	40.54	30.65	+6	0
5	40.40	61.16	−5	−1	38.42	51.89	+3	+11	38.49	41.55	+4	+10	40.64	30.31	+4	−3
6	40.31	60.92	−4	+5	38.39	51.54	+5	+9	38.53	41.17	+6	+7	40.74	29.98	+2	−6
7	40.21	60.68	−2	+9	38.36	51.19	+6	+6	38.57	40.79	+6	+3	40.84	29.65	0	−7
8	40.12	60.43	+1	+11	38.34	50.83	+6	+2	38.61	40.41	+5	−1	40.94	29.32	−2	−6
9	40.03	60.18	+4	+11	38.32	50.47	+5	−2	38.65	40.04	+4	−4	41.05	29.00	−3	−4
10	39.95	59.92	+6	+9	38.30	50.11	+3	−5	38.70	39.66	+2	−6	41.16	28.68	−4	−2
11	39.86	59.66	+6	+5	38.28	49.75	+1	−6	38.75	39.29	−1	−7	41.27	28.36	−4	+1
12	39.77	59.39	+6	0	38.26	49.39	−1	−6	38.80	38.91	−3	−6	41.38	28.04	−4	+4
13	39.69	59.12	+4	−3	38.25	49.03	−3	−4	38.85	38.53	−4	−3	41.49	27.73	−2	+6
14	39.61	58.85	+2	−5	38.24	48.66	−4	−2	38.90	38.15	−4	0	41.61	27.42	−1	+7
15	39.53	58.57	0	−6	38.23	48.30	−4	+1	38.96	37.78	−4	+3	41.73	27.11	+1	+7
16	39.46	58.29	−2	−5	38.23	47.93	−4	+4	39.02	37.41	−3	+5	41.85	26.81	+3	+5
17	39.38	58.00	−3	−4	38.22	47.56	−3	+6	39.08	37.04	−2	+7	41.97	26.51	+4	+2
18	39.31	57.71	−4	−1	38.22	47.19	−1	+7	39.14	36.67	0	+7	42.09	26.22	+4	−2
19	39.25	57.41	−4	+2	38.22	46.82	+1	+7	39.21	36.30	+2	+7	42.21	25.92	+3	−6
20	39.18	57.11	−3	+4	38.23	46.44	+3	+6	39.27	35.93	+3	+4	42.34	25.64	+1	−10
21	39.12	56.81	−2	+6	38.23	46.07	+4	+3	39.35	35.57	+4	0	42.47	25.35	−1	−11
22	39.06	56.50	0	+7	38.24	45.70	+4	−1	39.42	35.21	+4	−4	42.60	25.07	−3	−10
23	38.99	56.20	+1	+6	38.25	45.32	+3	−5	39.49	34.84	+3	−8	42.72	24.79	−5	−8
24	38.94	55.88	+3	+5	38.27	44.95	+2	−9	39.56	34.48	+1	−10	42.85	24.51	−6	−3
25	38.88	55.57	+4	+1	38.28	44.57	0	−11	39.64	34.12	−2	−11	42.99	24.24	−5	+2
26	38.83	55.25	+4	−3	38.30	44.20	−3	−11	39.72	33.76	−4	−10	43.12	23.97	−3	+7
27	38.78	54.93	+3	−7	38.32	43.82	−5	−9	39.80	33.41	−5	−6	43.26	23.71	−1	+10
28	38.73	54.60	+1	−10	38.34	43.44	−6	−5	39.89	33.05	−6	−1	43.40	23.45	+2	+11
29	38.68	54.27	−1	−12	38.37	43.06	−5	0	39.97	32.70	−4	+4	43.53	23.20	+4	+10
30	38.64	53.94	−4	−11					40.06	32.36	−2	+8	43.68	22.95	+6	+6
31	38.60	53.60	−5	−8					40.15	32.01	0	+10	43.82	22.70	+6	+2
32	38.56	53.26	−6	−3					40.25	31.67	+3	+10				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−81° 39′ 20″	6.891	−6.818	−81° 39′ 40″	6.895	−6.822	−81° 40′ 0″	6.900	−6.827
30	6.893	−6.820	50	6.898	−6.825	10	6.902	−6.829

$\alpha_{1947.0} = 22^h\ 40^m\ 46^s\!.16$ $\delta_{1947.0} = -81°\ 39'\ 37''\!.52$

*) Tag der doppelten unteren Kulmination: März 3.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Si) β Octantis $4^m 34$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in	
	$22^h 40^m$	— 81° 39′	$0^s.01$	0″.01	$22^h 40^m$	— 81° 39′	$0^s.01$	0″.01	$22^h 40^m$	— 81° 39′	$0^s.01$	0″.01	$22^h 40^m$	— 81° 39′	$0^s.01$	0″.01
	s	″			s	″			s	″			s	″		
1	43.82	22.70	+6	+2	48.65	17.31	0	−7	53.53	16.86	−4	−1	57.59	21.30	−1	+8
2	43.96	22.45	+5	−2	48.82	17.21	−2	−6	53.68	16.93	−4	+2	57.70	21.52	+1	+8
3	44.10	22.21	+3	−5	48.98	17.12	−4	−3	53.83	17.00	−3	+5	57.80	21.73	+2	+6
4	44.24	21.97	+1	−7	49.15	17.04	−4	−1	53.98	17.08	−2	+6	57.89	21.96	+3	+4
5	44.39	21.74	−1	−7	49.32	16.96	−4	+2	54.13	17.16	−1	+7	57.99	22.18	+4	0
6	44.53	21.52	−3	−5	49.48	16.89	−3	+5	54.28	17.25	+1	+7	58.08	22.41	+4	−4
7	44.68	21.29	−4	−3	49.65	16.82	−2	+7	54.43	17.35	+2	+5	58.17	22.65	+2	−8
8	44.83	21.08	−4	0	49.82	16.76	0	+7	54.57	17.45	+3	+2	58.26	22.89	0	−11
9	44.98	20.87	−4	+3	49.98	16.71	+1	+6	54.71	17.56	+4	−2	58.34	23.13	−2	−12
10	45.13	20.66	−3	+6	50.15	16.66	+3	+4	54.85	17.67	+3	−6	58.43	23.37	−4	−12
11	45.29	20.46	−1	+7	50.32	16.61	+4	+1	54.99	17.79	+2	−10	58.51	23.62	−6	−8
12	45.44	20.26	0	+7	50.49	16.57	+4	−4	55.14	17.91	−1	−12	58.59	23.86	−6	−3
13	45.60	20.07	+2	+6	50.65	16.54	+3	−8	55.27	18.03	−3	−13	58.66	24.12	−5	+2
14	45.75	19.88	+3	+3	50.82	16.51	+1	−11	55.41	18.16	−5	−10	58.74	24.37	−3	+7
15	45.90	19.69	+4	−1	50.98	16.49	−2	−13	55.55	18.30	−6	−6	58.81	24.63	0	+10
16	46.06	19.51	+4	−5	51.15	16.47	−4	−11	55.68	18.44	−6	−1	58.88	24.89	+3	+10
17	46.22	19.34	+2	−9	51.31	16.46	−6	−8	55.81	18.58	−4	+5	58.95	25.16	+5	+9
18	46.38	19.17	0	−11	51.47	16.45	−6	−3	55.95	18.73	−2	+9	59.01	25.43	+6	+5
19	46.54	19.00	−2	−12	51.63	16.45	−5	+3	56.07	18.89	+1	+11	59.07	25.70	+6	+1
20	46.70	18.84	−4	−10	51.79	16.46	−3	+8	56.20	19.05	+4	+11	59.13	25.97	+5	−3
21	46.86	18.69	−5	−6	51.95	16.47	0	+11	56.33	19.21	+6	+8	59.18	26.25	+3	−6
22	47.02	18.54	−6	0	52.11	16.48	+3	+12	56.46	19.38	+6	+3	59.24	26.52	0	−7
23	47.18	18.39	−4	+5	52.28	16.50	+5	+10	56.58	19.56	+6	−1	59.29	26.80	−2	−5
24	47.34	18.25	−2	+9	52.44	16.53	+6	+6	56.70	19.73	+4	−4	59.33	27.08	−3	−3
25	47.50	18.12	+1	+11	52.59	16.56	+6	+2	56.82	19.92	+2	−6	59.38	27.36	−4	0
26	47.66	17.99	+4	+11	52.75	16.59	+5	−2	56.94	20.10	−1	−6	59.42	27.65	−4	+4
27	47.82	17.86	+6	+8	52.91	16.64	+3	−5	57.05	20.29	−2	−4	59.46	27.93	−3	+6
28	47.99	17.74	+6	+4	53.06	16.68	+1	−6	57.17	20.49	−4	−2	59.50	28.22	−1	+8
29	48.16	17.63	+6	0	53.22	16.74	−1	−6	57.27	20.69	−4	+1	59.53	28.51	0	+8
30	48.32	17.52	+4	−4	53.37	16.80	−3	−4	57.38	20.89	−3	+4	59.56	28.80	+2	+7
31	48.49	17.41	+2	−6	53.53	16.86	−4	−1	57.49	21.09	−2	+6	59.60	29.09	+3	+5
32	48.65	17.31	0	−7					57.59	21.30	−1	+8	59.62 59.65	29.38 29.68	+4 +4	+2 −2

δ	sec δ	tg δ	δ	sec δ	tg δ
−81° 39′ 10″	6.888	−6.815	−81° 39′ 20″	6.891	−6.818
20	6.891	−6.818	30	6.893	−6.820

$\alpha_{1947.0} = 22^h\ 40^m\ 46^s.6$ $\delta_{1947.0} = -81°\ 39'\ 37''.52$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Si) β Octantis $4^m_.34$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	
		—	in			—	in	
	$22^h 40^m$	81° 39′	^{s} 0.01	$''$ 0.01	$22^h 40^m$	81° 39′	^{s} 0.01	$''$ 0.01
1	^{s} {59.62 / 59.65	$''$ 29.38 / 29.68	+4 / +4	+2 / −2}	^{s} 59.05	$''$ 38.44	0	−11
2	59.67	29.97	+3	−6	58.99	38.71	−2	−11
3	59.69	30.27	+1	−10	58.93	38.98	−4	−10
4	59.70	30.56	−1	−12	58.86	39.24	−6	−6
5	59.71	30.86	−3	−12	58.80	39.50	−6	−2
6	59.72	31.16	−5	−9	58.72	39.76	−5	+3
7	59.72	31.46	−6	−5	58.65	40.02	−3	+8
8	59.73	31.76	−6	0	58.58	40.28	0	+10
9	59.73	32.06	−4	+5	58.50	40.53	+3	+9
10	59.73	32.36	−2	+9	58.42	40.78	+5	+7
11	59.73	32.66	+1	+10	58.34	41.03	+6	+3
12	59.72	32.95	+4	+9	58.26	41.27	+6	−1
13	59.71	33.25	+6	+6	58.17	41.51	+4	−5
14	59.69	33.55	+6	+2	58.08	41.74	+2	−7
15	59.68	33.85	+5	−2	57.99	41.97	0	−7
16	59.65	34.14	+3	−5	57.90	42.19	−2	−6
17	59.63	34.44	+1	−7	57.80	42.41	−4	−3
18	59.61	34.74	−1	−6	57.70	42.63	−4	0
19	59.58	35.03	−3	−4	57.61	42.85	−4	+4
20	59.55	35.33	−4	−1	57.51	43.06	−3	+6
21	59.52	35.62	−4	+2	57.41	43.26	−1	+8
22	59.48	35.91	−3	+5	57.30	43.46	+1	+8
23	59.45	36.20	−2	+7	57.20	43.66	+2	+7
24	59.41	36.48	0	+8	57.09	43.85	+3	+4
25	59.36	36.77	+1	+8	56.98	44.03	+4	+1
26	59.32	37.05	+3	+6	56.87	44.21	+4	−3
27	59.27	37.33	+4	+3	56.76	44.39	+3	−7
28	59.22	37.61	+4	−1	56.65	44.56	+1	−10
29	59.17	37.89	+4	−5	56.54	44.73	−1	−12
30	59.11	38.17	+2	−8	56.42	44.90	−4	−11
31	59.05	38.44	0	−11	56.30	45.05	−5	−8
32					56.18	45.20	−6	−3

Tag	November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
		—	in			—	in	
	$22^h 40^m$	81° 39′	^{s} 0.01	$''$ 0.01	$22^h 40^m$	81° 39′	^{s} 0.01	$''$ 0.01
1	^{s} 56.18	$''$ 45.20	−6	−3	^{s} 52.24	$''$ 47.01	−2	+9
2	56.06	45.35	−5	+2	52.10	46.98	+1	+11
3	55.94	45.49	−3	+7	51.97	46.94	+4	+10
4	55.82	45.62	−1	+10	51.84	46.89	+6	+7
5	55.69	45.75	+2	+10	51.70	46.83	+6	+3
6	55.56	45.87	+4	+9	51.57	46.77	+5	−1
7	55.43	45.99	+6	+5	51.44	46.70	+4	−5
8	55.31	46.10	+6	+1	51.30	46.63	+1	−7
9	55.18	46.20	+5	−3	51.17	46.55	−1	−7
10	55.05	46.30	+3	−6	51.04	46.47	−3	−5
11	54.92	46.40	0	−7	50.91	46.37	−4	−2
12	54.79	46.49	−2	−7	50.78	46.27	−4	+1
13	54.66	46.57	−3	−4	50.66	46.17	−3	+5
14	54.53	46.65	−4	−1	50.53	46.06	−2	+7
15	54.39	46.72	−4	+2	50.40	45.94	−1	+8
16	54.26	46.78	−3	+5	50.28	45.81	+1	+8
17	54.13	46.84	−2	+8	50.15	45.68	+3	+6
18	53.99	46.90	0	+8	50.03	45.55	+4	+4
19	53.86	46.94	+2	+8	49.91	45.41	+4	0
20	53.72	46.98	+3	+5	49.79	45.26	+4	−5
21	53.59	47.02	+4	+2	49.67	45.11	+2	−9
22	53.45	47.05	+4	−2	49.55	44.95	0	−12
23	53.32	47.07	+3	−6	49.43	44.79	−2	−13
24	53.18	47.08	+1	−10	49.32	44.62	−4	−12
25	53.05	47.09	−1	−12	49.21	44.44	−6	−8
26	52.91	47.09	−3	−12	49.10	44.26	−6	−3
27	52.77	47.09	−5	−10	48.99	44.08	−5	+2
28	52.64	47.08	−6	−5	48.88	43.89	−3	+7
29	52.50	47.06	−6	0	48.77	43.69	0	+10
30	52.37	47.04	−4	+5	48.66	43.49	+3	+11
31	52.24	47.01	−2	+9	48.56	43.28	+5	+9
32					48.45	43.06	+6	+5

δ	sec δ	tg δ	δ	sec δ	tg δ
−81° 39′ 20″	6.891	−6.818	−81° 39′ 40″	6.895	−6.822
30	6.893	−6.820	50	6.898	−6.825

$\alpha_{1947.0} = 22^h\ 40^m\ 46^s.16$ $\delta_{1947.0} = -81°\ 39'\ 37''.52$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sk) τ Octantis 5^m56

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder in		Februar AR.	Februar Dekl.	Februar ☾ Glieder in		März AR.	März Dekl.	März ☾ Glieder in		April AR.	April Dekl.	April ☾ Glieder in	
	23^h20^m	−87° 46′	0.01 s	0.01″	23^h20^m	−87° 46′	0.01 s	0.01″	23^h20^m	−87° 46′	0.01 s	0.01″	23^h20^m	−87° 46′	0.01 s	0.01″
	s	″			s	″			s	″			s	″		
1	45.32	52.58	+ 8	−11	33.41	44.39	−18	− 5	29.02	34.16	−19	− 2	31.99	22.18	+ 4	+11
2	44.84	52.39	− 1	−12	33.14	44.06	−18	0	28.99	33.77	−17	+ 3	32.22	21.81	+12	+ 9
3	44.37	52.20	− 9	−11	32.88	43.73	−15	+ 6	28.96	33.38	−11	+ 8	32.45	21.44	+18	+ 6
4	43.90	52.00	−15	− 7	32.62	43.39	− 7	+ 9	28.95	32.99	− 2	+10	32.70	21.07	+19	+ 2
5	43.44	51.79	−19	− 2	32.38	43.05	+ 2	+11	28.94	32.60	+ 7	+10	32.95	20.70	+17	− 2
6	42.99	51.58	−17	+ 3	32.14	42.70	+11	+10	28.94	32.21	+15	+ 8	33.21	20.34	+12	− 5
7	42.54	51.37	−11	+ 8	31.91	42.36	+17	+ 8	28.95	31.82	+19	+ 5	33.47	19.98	+ 5	− 7
8	42.09	51.14	− 3	+11	31.69	42.00	+20	+ 4	28.97	31.43	+19	+ 1	33.75	19.62	− 3	− 7
9	41.66	50.92	+ 7	+12	31.47	41.65	+19	0	29.00	31.04	+16	− 3	34.03	19.27	− 9	− 5
10	41.23	50.68	+14	+10	31.27	41.29	+14	− 4	29.04	30.64	+ 9	− 5	34.31	18.92	−14	− 3
11	40.80	50.44	+19	+ 6	31.07	40.93	+ 7	− 6	29.08	30.25	+ 2	− 6	34.61	18.57	−16	0
12	40.38	50.20	+20	+ 2	30.88	40.58	− 1	− 6	29.14	29.86	− 5	− 6	34.91	18.22	−15	+ 3
13	39.96	49.96	+17	− 2	30.70	40.21	− 7	− 5	*)29.20	29.47	−11	− 4	35.22	17.87	−12	+ 5
14	39.56	49.71	+11	− 5	30.53	39.85	−13	− 3	29.27	29.07	−15	− 2	35.53	17.53	− 7	+ 7
15	39.16	49.45	+ 3	− 6	30.37	39.48	−16	0	29.35	28.68	−16	+ 1	35.86	17.19	0	+ 7
16	38.76	49.19	− 4	− 6	30.22	39.11	−15	+ 2	29.43	28.29	−14	+ 4	36.19	16.85	+ 7	+ 5
17	38.37	48.93	− 9	− 5	30.08	38.74	−12	+ 5	29.53	27.90	−10	+ 6	36.52	16.52	+12	+ 3
18	37.99	48.65	−14	− 2	29.94	38.37	− 8	+ 6	29.64	27.51	− 4	+ 7	36.87	16.19	+15	− 1
19	37.62	48.38	−16	0	29.82	37.99	− 2	+ 7	29.75	27.13	+ 3	+ 7	37.22	15.86	+15	− 5
20	37.25	48.09	−14	+ 3	29.70	37.61	+ 5	+ 6	29.88	26.74	+ 9	+ 5	37.58	15.54	+11	− 9
21	36.89	47.80	−11	+ 5	29.59	37.23	+11	+ 4	30.01	26.35	+14	+ 2	37.95	15.22	+ 4	−11
22	36.54	47.51	− 6	+ 6	29.49	36.86	+14	0	30.15	25.97	+15	− 2	38.32	14.90	− 4	−11
23	36.19	47.22	0	+ 6	29.39	36.48	+15	− 4	30.30	25.58	+14	− 6	38.69	14.58	−12	− 9
24	35.85	46.92	+ 7	+ 5	29.31	36.10	+12	− 8	30.45	25.20	+ 9	− 9	39.08	14.27	−17	− 5
25	35.52	46.62	+12	+ 2	29.23	35.71	+ 6	−10	30.61	24.81	+ 1	−11	39.47	13.96	−18	0
26	35.20	46.31	+15	− 1	29.16	35.33	− 2	−11	30.79	24.43	− 7	−10	39.86	13.65	−15	+ 6
27	34.88	46.00	+14	− 6	29.11	34.94	−10	−10	30.97	24.05	−14	− 8	40.26	13.35	− 9	+ 9
28	34.57	45.69	+10	− 9	29.06	34.55	−16	− 7	31.15	23.67	−18	− 3	40.67	13.05	0	+11
29	34.27	45.37	+ 3	−12	29.02	34.16	−19	− 2	31.35	23.30	−18	+ 2	41.09	12.76	+ 9	+10
30	33.98	45.05	− 5	−12					31.56	22.92	−13	+ 7	41.51	12.47	+16	+ 8
31	33.69	44.72	−13	− 9					31.77	22.55	− 5	+10	41.94	12.19	+19	+ 4
32	33.41	44.39	−18	− 5					31.99	22.18	+ 4	+11				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 46′ 10″	25.693	−25.674	−87° 46′ 30″	25.757	−25.738	−87° 46′ 50″	25.822	−25.802
20	25.725	−25.706	40	25.790	−25.770	60	25.854	−25.835

$\alpha_{1947.0} = 23^h\ 20^m\ 55^s.19$ $\delta_{1947.0} = -87°\ 46'\ 26''.73$

*) Tag der doppelten unteren Kulmination: März 13.

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sk) τ Octantis $5^m\!.56$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	23^h20^m	$-87°46'$	in $0^s\!.01$	$0''\!.01$	23^h20^m	$-87°46'$	in $0^s\!.01$	$0''\!.01$	23^h21^m	$-87°46'$	in $0^s\!.01$	$0''\!.01$	23^h21^m	$-87°46'$	in $0^s\!.01$	$0''\!.01$
1	s 41.94	" 12.19	+19	+ 4	s 57.46	" 5.50	+ 3	− 6	s 14.49	" 3.78	−13	− 2	s 30.10	" 7.19	− 8	+ 7
2	42.37	11.91	+18	0	58.02	5.36	− 4	− 6	15.05	3.81	−15	0	30.52	7.38	− 3	+ 7
3	42.80	11.63	+15	− 4	58.58	5.22	−10	− 4	15.61	3.85	−15	+ 3	30.93	7.57	+ 3	+ 7
4	43.24	11.35	+ 8	− 6	59.14	5.10	−14	− 2	16.16	3.89	−11	+ 5	31.34	7.77	+ 9	+ 5
5	43.69	11.08	0	− 7	59.70	4.98	−15	+ 1	16.71	3.93	− 7	+ 7	31.74	7.97	+14	+ 1
6	44.14	10.82	− 7	− 6	60.26	4.86	−14	+ 4	17.26	3.98	− 1	+ 7	32.13	8.18	+15	− 3
7	44.60	10.55	−12	− 4	60.82	4.75	−11	+ 6	17.80	4.04	+ 5	+ 6	32.51	8.39	+13	− 7
8	45.06	10.30	−15	− 1	61.39	4.65	− 5	+ 7	18.34	4.10	+11	+ 3	32.89	8.61	+ 8	−10
9	45.53	10.04	−16	+ 2	61.96	4.55	+ 1	+ 7	18.88	4.17	+14	0	33.26	8.83	+ 1	−12
10	46.01	9.79	−14	+ 4	62.53	4.46	+ 8	+ 5	19.42	4.25	+15	− 5	33.62	9.05	− 7	−12
11	46.49	9.55	− 9	+ 6	63.10	4.37	+13	+ 3	19.95	4.33	+12	− 9	33.98	9.28	−15	−10
12	46.97	9.31	− 3	+ 7	63.67	4.29	+15	− 2	20.48	4.41	+ 6	−12	34.33	9.51	−20	− 5
13	47.46	9.07	+ 4	+ 6	64.24	4.21	+14	− 6	21.01	4.50	− 3	−13	34.67	9.75	−20	0
14	47.95	8.84	+10	+ 4	64.81	4.14	+10	−10	21.53	4.59	−11	−11	35.00	9.99	−15	+ 5
15	48.45	8.61	+14	0	65.39	4.07	+ 3	−12	22.05	4.69	−18	− 8	35.32	10.23	− 7	+ 9
16	48.95	8.39	+16	− 4	65.96	4.01	− 6	−12	22.56	4.80	−20	− 3	35.64	10.47	+ 3	+11
17	49.46	8.17	+13	− 8	66.53	3.96	−14	−10	23.07	4.91	−18	+ 3	35.94	10.72	+12	+10
18	49.97	7.96	+ 7	−11	67.10	3.91	−19	− 5	23.57	5.03	−12	+ 8	36.24	10.97	+19	+ 7
19	50.48	7.75	− 1	−12	67.68	3.87	−19	+ 1	24.07	5.15	− 2	+11	36.53	11.23	+21	+ 3
20	51.00	7.55	− 9	−10	68.25	3.83	−15	+ 6	24.57	5.28	+ 7	+11	36.82	11.49	+19	− 1
21	51.52	7.35	−16	− 7	68.83	3.80	− 7	+10	25.06	5.41	+15	+ 9	37.09	11.75	+12	− 5
22	52.04	7.16	−19	− 2	69.40	3.77	+ 2	+12	25.55	5.55	+20	+ 5	37.36	12.01	+ 5	− 6
23	52.57	6.97	−17	+ 4	69.97	3.75	+11	+11	26.03	5.69	+20	+ 1	37.61	12.28	− 3	− 6
24	53.10	6.78	−12	+ 8	70.54	3.73	+18	+ 8	26.50	5.83	+16	− 3	37.86	12.55	−10	− 4
25	53.63	6.60	− 3	+11	71.11	3.72	+21	+ 4	26.97	5.99	+ 9	− 5	38.09	12.82	−14	− 1
26	54.17	6.43	+ 6	+12	71.68	3.72	+19	0	27.44	6.14	+ 1	− 6	38.32	13.10	−15	+ 2
27	54.71	6.26	+14	+10	72.25	3.72	+13	− 4	27.89	6.30	− 6	− 5	38.54	13.38	−14	+ 5
28	55.26	6.10	+19	+ 6	72.81	3.73	+ 6	− 6	28.35	6.47	−11	− 3	38.74	13.66	−10	+ 7
29	55.80	5.94	+20	+ 2	73.37	3.74	− 2	− 6	28.79	6.64	−14	0	38.94	13.94	− 5	+ 8
30	56.36	5.79	+17	− 2	73.93	3.76	− 8	− 5	29.23	6.82	−15	+ 3	39.13	14.23	+ 2	+ 7
31	56.91	5.64	+11	− 5	74.49	3.78	−13	− 2	29.67	7.00	−13	+ 6	39.31	14.51	+ 7	+ 6
32	57.46	5.50	+ 3	− 6					30.10	7.19	− 8	+ 7	39.48	14.80	+12	+ 3

δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 46′ 0″	25.661	−25.642	−87° 46′ 10″	25.693	−25.674
10	25.693	−25.674	20	25.725	−25.706

$\alpha_{1947.0} = 23^h\ 20^m\ 55^s\!.19$ $\delta_{1947.0} = -87°\ 46'\ 26''\!.73$

Scheinbare Sternörter 1947

Obere Kulmination Greenwich

Sk) τ Octantis $5^m 56$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$23^h 21^m$	−87° 46′	in $0^s.01$	in $0''.01$	$23^h 21^m$	−87° 46′	in $0^s.01$	in $0''.01$	$23^h 21^m$	−87° 46′	in $0^s.01$	in $0''.01$	$23^h 20^m$	−87° 46′	in $0^s.01$	in $0''.01$
1	39.48	14.80	+12	+3	39.69	24.17	+7	−10	30.50	31.91	−19	−5	75.65	34.98	−12	+8
2	39.63	15.09	+15	−1	39.53	24.46	−1	−12	30.07	32.09	−20	0	75.11	34.98	−3	+11
3	39.78	15.39	+14	−5	39.36	24.75	−9	−11	29.64	32.27	−16	+5	74.57	34.98	+7	+11
4	39.92	15.68	+11	−9	39.18	25.04	−16	−8	29.21	32.45	−9	+9	74.03	34.98	+15	+9
5	40.05	15.98	+4	−11	38.99	25.33	−19	−3	28.76	32.62	+1	+10	73.48	34.96	+20	+5
6	40.17	16.28	−4	−12	38.79	25.62	−19	+2	28.31	32.78	+10	+10	72.94	34.94	+20	0
7	40.28	16.58	−12	−10	38.58	25.90	−14	+6	27.85	32.94	+17	+7	72.40	34.92	+16	−3
8	40.38	16.88	−18	−7	38.37	26.18	−5	+9	27.39	33.09	+20	+3	71.85	34.88	+9	−6
9	40.47	17.18	−20	−2	38.14	26.46	+4	+10	26.93	33.24	+18	−1	71.31	34.85	+1	−7
10	40.55	17.48	−17	+3	37.91	26.74	+13	+8	26.46	33.38	+14	−5	70.77	34.80	−6	−6
11	40.62	17.78	−11	+8	37.66	27.01	+19	+5	25.98	33.52	+6	−7	70.23	34.75	−12	−3
12	40.68 40.73	18.08 18.39	−1 +9	+10 +10	37.41	27.28	+20	+1	25.50	33.65	−2	−7	69.69	34.69	−15	0
13	40.77	18.70	+16	+8	37.14	27.55	+17	−3	25.01	33.77	−9	−5	69.16	34.63	−15	+3
14	40.79	19.00	+20	+4	36.87	27.81	+11	−6	24.52	33.89	−13	−2	68.62	34.55	−12	+6
15	40.81	19.31	+20	0	36.59	28.07	+3	−7	24.02	34.00	−16	+1	68.08	34.48	−8	+7
16	40.82	19.62	+15	−4	36.29	28.33	−5	−6	23.52	34.11	−14	+4	67.55	34.39	−2	+8
17	40.81	19.93	+8	−6	35.99	28.58	−11	−4	23.02	34.21	−11	+7	67.01	34.30	+5	+7
18	40.80	20.24	0	−6	35.68	28.83	−15	−1	22.51	34.31	−6	+8	66.48	34.20	+11	+5
19	40.78	20.55	−8	−5	35.36	29.08	−16	+2	22.00	34.40	+1	+8	65.95	34.10	+15	+1
20	40.74	20.86	−13	−2	35.04	29.32	−13	+5	21.49	34.49	+7	+6	65.43	33.99	+16	−3
21	40.70	21.16	−15	+1	34.70	29.56	−9	+7	20.97	34.56	+12	+3	64.91	33.87	+13	−7
22	40.64	21.47	−15	+4	34.36	29.80	−3	+8	20.45	34.63	+16	−1	64.39	33.75	+8	−11
23	40.58	21.77	−12	+6	34.01	30.03	+4	+7	19.92	34.70	+15	−5	63.87	33.62	+1	−13
24	40.50	22.08	−7	+8	33.65	30.26	+9	+5	19.40	34.76	+12	−9	63.36	33.48	−8	−12
25	40.42	22.38	0	+8	33.28	30.48	+14	+2	18.86	34.81	+5	−11	62.85	33.34	−16	−10
26	40.32	22.68	+6	+7	32.90	30.70	+15	−2	18.33	34.85	−3	−12	62.35	33.19	−20	−5
27	40.21	22.98	+11	+4	32.52	30.91	+14	−6	17.80	34.89	−11	−11	61.84	33.04	−20	+1
28	40.10	23.28	+15	+1	32.13	31.12	+10	−10	17.26	34.92	−17	−7	61.34	32.88	−15	+6
29	39.97	23.58	+15	−3	31.73	31.32	+2	−11	16.72	34.95	−20	−2	60.85	32.71	−7	+10
30	39.83	23.88	+13	−7	31.33	31.52	−6	−11	16.19	34.97	−18	+4	60.36	32.54	+3	+11
31	39.69	24.17	+7	−10	30.92	31.72	−14	−9	15.65	34.98	−12	+8	59.87	32.36	+12	+10
32					30.50	31.91	−19	−5					59.39	32.17	+19	+7

δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 46′ 10″	25.693	−25.674	−87° 46′ 30″	25.757	−25.738
20	25.725	−25.706	40	25.790	−25.770

$\alpha_{1947.0} = 23^h\ 20^m\ 55^s.9$ $\delta_{1947.0} = -87^\circ\ 46'\ 26''.73$

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10ᵐ56		BD +89° 3 Gr. 9ᵐ06		BD +89° 37 Gr. 10ᵐ06		CPD −89° 38 Gr. 9ᵐ5		Kurzperiod. Nutations-glieder*)	
1947	x	y	x	y	x	y	x	y	in x	in y
	″	″	″	″	″	″	″	″	Einh. 0″01	
Jan. 0	−433.95	+72.70	−235.89	+857.71	−1215.37	−352.40	+88.21	−307.41	+ 4	−10
1	433.96	72.36	235.91	857.37	1215.39	352.75	88.35	307.73	+ 8	− 8
2	433.97	72.01	235.92	857.03	1215.40	353.10	88.49	308.04	+11	− 5
3	433.97	71.67	235.92	856.69	1215.40	353.44	88.64	308.35	+12	0
4	433.97	71.33	235.92	856.35	1215.40	353.78	88.79	308.66	+10	+ 5
5	−433.96	+70.99	−235.91	+856.01	−1215.39	−354.12	+88.95	−308.97	+ 6	+ 9
6	433.94	70.65	235.89	855.67	1215.37	354.46	89.12	309.27	+ 1	+11
7	433.92	70.31	235.87	855.33	1215.35	354.80	89.29	309.57	− 4	+10
8	433.89	69.97	235.84	854.99	1215.32	355.14	89.46	309.87	− 9	+ 6
9	433.85	69.63	235.80	854.65	1215.28	355.48	89.65	310.17	−11	+ 2
10	−433.81	+69.29	−235.76	+854.32	−1215.24	−355.82	+89.83	−310.47	−12	− 3
11	433.76	68.96	235.71	853.98	1215.19	356.15	90.03	310.76	−10	− 8
12	433.70	68.62	235.65	853.65	1215.13	356.49	90.23	311.05	− 6	−10
13	433.64	68.29	235.59	853.32	1215.07	356.82	90.43	311.34	− 2	−10
14	433.57	67.96	235.52	852.99	1215.00	357.15	90.64	311.62	+ 2	− 8
15	−433.49	+67.64	−235.44	+852.66	−1214.92	−357.47	+90.86	−311.90	+ 5	− 5
16	433.41	67.31	235.36	852.34	1214.84	357.80	91.08	312.18	+ 6	− 1
17	433.32	66.99	235.28	852.02	1214.76	358.13	91.31	312.46	+ 6	+ 3
18	433.23	66.66	235.18	851.70	1214.66	358.45	91.54	312.73	+ 4	+ 6
19	433.13	66.35	235.09	851.38	1214.57	358.77	91.78	313.00	+ 2	+ 8
20	−433.03	+66.03	−234.98	+851.06	−1214.46	−359.08	+92.02	−313.27	0	+ 9
21	432.91	65.72	234.87	850.75	1214.35	359.40	92.27	313.53	− 3	+ 8
22	432.79	65.41	234.75	850.44	1214.23	359.71	92.52	313.79	− 5	+ 6
23	432.67	65.10	234.63	850.13	1214.11	360.02	92.78	314.04	− 6	+ 3
24	432.54	64.79	234.49	849.83	1213.97	360.33	93.04	314.30	− 6	− 1
25	−432.40	+64.49	−234.36	+849.53	−1213.84	−360.63	+93.31	−314.54	− 5	− 5
26	432.25	64.19	234.21	849.23	1213.69	360.93	93.58	314.79	− 2	− 8
27	432.10	63.89	234.06	848.93	1213.54	361.23	93.86	315.03	+ 2	− 9
28	431.95	63.60	233.91	848.64	1213.39	361.53	94.14	315.27	+ 6	− 9
29	431.79	63.30	233.76	848.35	1213.23	361.82	94.42	315.51	+10	− 6
30	−431.63	+63.02	−233.59	+848.06	−1213.07	−362.11	+94.71	−315.74	+12	− 2
31	431.46	62.74	233.42	847.78	1212.90	362.39	95.00	315.97	+11	+ 3
Febr. 1	431.28	62.46	233.25	847.50	1212.72	362.67	95.30	316.19	+ 8	+ 7
2	431.10	62.18	233.07	847.23	1212.54	362.94	95.60	316.41	+ 4	+10
3	430.91	61.92	232.88	846.96	1212.35	363.21	95.91	316.62	− 1	+10
4	−430.72	+61.65	−232.69	+846.70	−1212.16	−363.48	+96.22	−316.83	− 6	+ 8
5	430.52	61.39	232.49	846.44	1211.96	363.74	96.53	317.04	−10	+ 4
6	−430.32	+61.13	−232.29	+846.18	−1211.76	−364.00	+96.85	−317.25	−11	− 1
	″	″	″	″	″	″	″	″		
Mittl. Ort	−420.02	+78.25	−222.02	+863.28	−1201.47	−346.91	+114.75	−307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1947

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10^m56		BD +89° 3 Gr. 9^m06		BD +89° 37 Gr. 10^m06		CPD −89° 38 Gr. 9^m5		Kurzperiod. Nutationsglieder*)	
1947	x	y	x	y	x	y	x	y	in x	in y
	″	″	″	″	″	″	″	″	Einh. 0″01	
Febr. 6	−430.32	+61.13	−232.29	+846.18	−1211.76	−364.00	+ 96.85	−317.25	−11	− 1
7	430.11	60.88	232.08	845.93	1211.55	364.26	97.17	317.45	−10	− 6
8	429.90	60.63	231.87	845.68	1211.34	364.51	97.49	317.64	− 7	− 9
9	429.69	60.38	231.66	845.43	1211.13	364.75	97.82	317.83	− 3	−11
10	429.47	60.14	231.44	845.19	1210.91	364.99	98.15	318.02	+ 1	−10
11	−429.24	+59.91	−231.21	+844.96	−1210.68	−365.23	+ 98.48	−318.20	+ 4	− 7
12	429.01	59.68	230.98	844.73	1210.45	365.46	98.82	318.37	+ 6	− 3
13	428.78	59.45	230.75	844.50	1210.22	365.68	99.16	318.54	+ 6	+ 1
14	428.54	59.23	230.51	844.28	1209.98	365.90	99.50	318.71	+ 5	+ 5
15	428.29	59.02	230.26	844.07	1209.73	366.12	99.85	318.87	+ 3	+ 8
16	−428.04	+58.81	−230.01	+843.86	−1209.49	−366.33	+100.20	−319.03	0	+ 9
17	427.79	58.60	229.76	843.65	1209.24	366.54	100.55	319.18	− 2	+ 9
18	427.53	58.40	229.50	843.45	1208.98	366.74	100.90	319.33	− 5	+ 7
19	427.28	58.21	229.25	843.26	1208.73	366.93	101.26	319.48	− 6	+ 4
20	427.01	58.02	228.98	843.07	1208.46	367.12	101.62	319.62	− 7	+ 1
21	−426.75	+57.83	−228.72	+842.88	−1208.20	−367.31	+101.98	−319.75	− 6	− 3
22	426.48	57.66	228.45	842.71	1207.93	367.48	102.35	319.88	− 3	− 7
23	426.21	57.48	228.18	842.53	1207.65	367.66	102.72	320.01	0	− 9
24	425.93	57.32	227.90	842.37	1207.37	367.82	103.09	320.13	+ 4	− 9
25	425.65	57.16	227.62	842.21	1207.09	367.98	103.46	320.24	+ 8	− 8
26	−425.37	+57.00	−227.34	+842.06	−1206.81	−368.14	+103.83	−320.35	+11	− 4
27	425.09	56.85	227.06	841.91	1206.52	368.29	104.21	320.46	+11	+ 1
28	424.80	56.71	226.77	841.76	1206.24	368.43	104.58	320.56	+ 9	+ 6
März 1	424.51	56.57	226.48	841.63	1205.96	368.57	104.96	320.66	+ 6	+ 9
2	424.22	56.44	226.19	841.50	1205.66	368.70	105.34	320.75	+ 1	+10
3	−423.92	+56.31	−225.90	+841.37	−1205.37	−368.82	+105.72	−320.84	− 4	+ 9
4	423.63	56.19	225.60	841.25	1205.07	368.94	106.11	320.92	− 8	+ 6
5	423.33	56.09	225.31	841.14	1204.77	369.06	106.49	320.99	−10	+ 1
6	423.03	55.98	225.00	841.03	1204.46	369.17	106.88	321.06	−10	− 4
7	422.72	55.88	224.70	840.93	1204.15	369.27	107.27	321.13	− 8	− 8
8	−422.42	+55.78	−224.40	+840.83	−1203.85	−369.37	+107.66	−321.19	− 4	−10
9	422.11	55.69	224.09	840.74	1203.54	369.46	108.05	321.25	0	−10
10	421.80	55.61	223.78	840.66	1203.23	369.54	108.43	321.30	+ 3	− 8
11	421.50	55.53	223.48	840.58	1202.93	369.62	108.82	321.35	+ 5	− 5
12	421.19	55.46	223.17	840.51	1202.62	369.69	109.22	321.39	+ 6	− 1
13	−420.88	+55.40	−222.86	+840.45	−1202.31	−369.76	+109.61	−321.43	+ 6	+ 3
14	420.57	55.34	222.55	840.39	1202.00	369.82	110.00	321.46	+ 4	+ 7
15	−420.26	+55.29	−222.24	+840.34	−1201.69	−369.87	+110.40	−321.49	+ 2	+ 9
Mittl. Ort	″ −420.02	″ +78.25	″ −222.02	″ +863.28	″ −1201.47	″ −346.91	″ +114.75	″ −307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1947

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10ᵐ.56		BD +89° 3 Gr. 9ᵐ.06		BD +89° 37 Gr. 10ᵐ.06		CPD −89° 38 Gr. 9ᵐ.5		Kurzperiod. Nutationsglieder*)	
1947	x	y	x	y	x	y	x	y	in x Einh. 0″.01	in y
	″	″	″	″	″	″	″	″		
März 15	−420.26	+55.29	−222.24	+840.34	−1201.69	−369.87	+110.40	−321.49	+ 2	+ 9
16	419.94	55.25	221.92	840.30	1201.37	369.91	110.79	321.51	− 1	+ 9
17	419.63	55.21	221.61	840.26	1201.06	369.95	111.19	321.53	− 4	+ 8
18	419.32	55.18	221.30	840.23	1200.75	369.98	111.58	321.54	− 6	+ 5
19	419.01	55.15	220.99	840.20	1200.44	370.01	111.97	321.55	− 7	+ 2
20	−418.69	+55.13	−220.67	+840.18	−1200.12	−370.03	+112.36	−321.55	− 6	− 2
21	418.38	55.11	220.36	840.16	1199.81	370.05	112.75	321.55	− 4	− 6
22	418.07	55.11	220.05	840.16	1199.50	370.05	113.14	321.54	− 1	− 8
23	417.76	55.11	219.74	840.16	1199.19	370.05	113.53	321.53	+ 3	− 9
23	417.44	55.11	219.42	840.16	1198.87	370.05	113.93	321.51	+ 7	− 8
24	−417.13	+55.12	−219.11	+840.17	−1198.56	−370.04	+114.33	−321.48	+10	− 5
25	416.81	55.14	218.79	840.19	1198.24	370.02	114.72	321.45	+11	− 1
26	416.50	55.17	218.48	840.22	1197.93	369.99	115.12	321.42	+10	+ 4
27	416.19	55.20	218.17	840.25	1197.62	369.96	115.51	321.38	+ 7	+ 8
28	415.88	55.24	217.86	840.28	1197.31	369.93	115.90	321.34	+ 2	+10
29	−415.57	+55.28	−217.55	+840.32	−1197.00	−369.89	+116.29	−321.30	− 3	+10
30	415.26	55.33	217.24	840.37	1196.69	369.84	116.68	321.25	− 7	+ 7
31	414.96	55.38	216.94	840.42	1196.39	369.79	117.07	321.19	−10	+ 3
April 1	414.65	55.44	216.63	840.48	1196.08	369.73	117.46	321.13	−10	− 2
2	414.35	55.51	216.33	840.55	1195.78	369.66	117.84	321.06	− 9	− 7
3	−414.05	+55.58	−216.03	+840.62	−1195.48	−369.59	+118.22	−320.99	− 6	−10
4	413.76	55.66	215.74	840.70	1195.19	369.51	118.61	320.91	− 2	−10
5	413.46	55.74	215.44	840.79	1194.89	369.42	118.99	320.83	+ 2	− 9
6	413.16	55.83	215.14	840.88	1194.59	369.33	119.37	320.75	+ 5	− 6
7	412.87	55.92	214.85	840.97	1194.30	369.24	119.75	320.66	+ 6	− 2
8	−412.58	+56.02	−214.56	+841.07	−1194.01	−369.14	+120.13	−320.57	+ 6	+ 2
9	412.29	56.13	214.28	841.18	1193.72	369.03	120.50	320.47	+ 5	+ 6
10	412.01	56.24	213.99	841.29	1193.44	368.92	120.88	320.36	+ 3	+ 8
11	411.72	56.36	213.71	841.41	1193.15	368.80	121.25	320.26	0	+ 9
12	411.44	56.48	213.43	841.53	1192.87	368.68	121.62	320.14	− 3	+ 9
13	−411.17	+56.61	−213.15	+841.66	−1192.60	−368.55	+121.99	−320.02	− 5	+ 7
14	410.89	56.75	212.88	841.80	1192.32	368.41	122.36	319.90	− 6	+ 4
15	410.62	56.89	212.61	841.94	1192.05	368.27	122.72	319.77	− 6	− 1
16	410.35	57.04	212.34	842.09	1191.78	368.13	123.08	319.64	− 5	− 5
17	410.08	57.19	212.07	842.24	1191.51	367.98	123.44	319.50	− 2	− 8
18	−409.82	+57.34	−211.81	+842.39	−1191.25	−367.82	+123.80	−319.36	+ 2	− 9
19	409.56	57.50	211.56	842.55	1190.99	367.66	124.15	319.22	+ 6	− 9
20	−409.31	+57.67	−211.31	+842.72	−1190.73	−367.50	+124.50	−319.07	+ 9	− 7
	″	″	″	″	″	″	″	″		
Mittl. Ort	−420.02	+78.25	−222.02	+863.28	−1201.47	−346.91	+114.75	−307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1947

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Nutationsglieder*)	
1947	x	y	x	y	x	y	x	y	in x Einh. 0".01	in y
	"	"	"	"	"	"	"	"		
April 20	−409.31	+57.67	−211.31	+842.72	−1190.73	−367.50	+124.50	−319.07	+ 9	− 7
21	409.06	57.84	211.06	842.89	1190.48	367.33	124.85	318.92	+11	− 3
22	408.81	58.01	210.82	843.06	1190.23	367.15	125.20	318.76	+10	+ 2
23	408.57	58.19	210.58	843.24	1189.99	366.97	125.54	318.60	+ 8	+ 7
24	408.33	58.38	210.34	843.43	1189.75	366.79	125.88	318.43	+ 4	+10
25	−408.10	+58.57	−210.10	+843.62	−1189.52	−366.60	+126.22	−318.26	− 2	+10
26	407.87	58.76	209.87	843.81	1189.29	366.41	126.56	318.09	− 6	+ 9
27	407.64	58.96	209.64	844.01	1189.06	366.21	126.89	317.91	−10	+ 5
28	407.41	59.16	209.42	844.21	1188.83	366.01	127.22	317.73	−11	0
29	407.19	59.37	209.20	844.42	1188.61	365.80	127.54	317.55	−10	− 5
30	−406.98	+59.58	−208.99	+844.63	−1188.40	−365.59	+127.86	−317.36	− 7	− 9
Mai 1	406.77	59.79	208.78	844.84	1188.19	365.37	128.18	317.17	− 3	−10
2	406.57	60.01	208.58	845.06	1187.98	365.15	128.50	316.97	0	−10
3	406.37	60.23	208.38	845.28	1187.78	364.93	128.81	316.77	+ 4	− 7
4	406.18	60.46	208.18	845.51	1187.59	364.70	129.12	316.56	+ 6	− 4
5	−405.99	+60.69	−207.99	+845.74	−1187.40	−364.47	+129.42	−316.35	+ 6	0
6	405.80	60.92	207.80	845.97	1187.21	364.24	129.72	316.14	+ 6	+ 4
7	405.61	61.16	207.62	846.21	1187.03	364.00	130.02	315.93	+ 4	+ 7
8	405.44	61.40	207.44	846.45	1186.85	363.76	130.32	315.71	+ 1	+ 9
9	405.26	61.64	207.27	846.69	1186.68	363.52	130.61	315.49	− 2	+ 9
10	−405.10	+61.89	−207.11	+846.94	−1186.51	−363.27	+130.89	−315.26	− 4	+ 8
11	404.94	62.14	206.94	847.19	1186.35	363.02	131.18	315.03	− 6	+ 5
12	404.78	62.40	206.79	847.45	1186.19	362.76	131.45	314.79	− 6	+ 1
13	404.63	62.65	206.64	847.70	1186.04	362.51	131.73	314.55	− 5	− 3
14	404.49	62.92	206.49	847.97	1185.89	362.24	132.00	314.31	− 3	− 7
15	−404.35	+63.18	−206.35	+848.23	−1185.75	−361.98	+132.26	−314.06	0	− 9
16	404.21	63.45	206.21	848.49	1185.61	361.72	132.53	313.81	+ 5	−10
17	404.08	63.71	206.08	848.76	1185.48	361.45	132.79	313.57	+ 8	− 8
18	403.95	63.99	205.96	849.03	1185.35	361.18	133.04	313.31	+11	− 4
19	403.83	64.26	205.84	849.31	1185.23	360.90	133.29	313.06	+11	0
20	−403.72	+64.54	−205.72	+849.58	−1185.12	−360.63	+133.54	−312.80	+10	+ 5
21	403.61	64.82	205.61	849.86	1185.01	360.35	133.78	312.54	+ 6	+ 9
22	403.50	65.10	205.51	850.14	1184.90	360.07	134.01	312.27	0	+11
23	403.41	65.38	205.41	850.42	1184.81	359.79	134.24	312.00	− 5	+10
24	403.32	65.67	205.32	850.71	1184.72	359.50	134.47	311.73	− 9	+ 7
25	−403.23	+65.96	−205.24	+851.00	−1184.63	−359.21	+134.69	−311.45	−11	+ 2
26	403.15	66.25	205.16	851.29	1184.55	358.92	134.91	311.18	−11	− 3
27	−403.07	+66.54	−205.08	+851.57	−1184.47	−358.64	+135.12	−310.90	− 9	− 7
	"	"	"	"	"	"	"	"		
Mittl. Ort	−420.02	+78.25	−222.02	+863.28	−1201.47	−346.91	+114.75	−307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Nutations-glieder*)	
1947	x	y	x	y	x	y	x	y	in x	in y
	″	″	″	″	″	″	″	″	Einh. 0″.01	
Mai 27	−403.07	+66.54	−205.08	+851.57	−1184.47	−358.64	+135.12	−310.90	− 9	− 7
28	403.00	66.83	205.01	851.87	1184.40	358.34	135.33	310.62	− 6	−10
29	402.94	67.12	204.95	852.16	1184.33	358.05	135.53	310.33	− 1	−10
30	402.88	67.42	204.89	852.45	1184.27	357.76	135.72	310.05	+ 2	− 9
31	402.82	67.71	204.84	852.75	1184.22	357.46	135.92	309.76	+ 5	− 5
Juni 1	−402.78	+68.01	−204.79	+853.05	−1184.17	−357.16	+136.10	−309.47	+ 6	− 1
2	402.73	68.31	204.75	853.34	1184.13	356.87	136.28	309.18	+ 6	+ 3
3	402.70	68.62	204.72	853.65	1184.09	356.56	136.46	308.88	+ 4	+ 6
4	402.67	68.92	204.69	853.95	1184.06	356.26	136.63	308.58	+ 2	+ 8
5	402.65	69.22	204.67	854.25	1184.03	355.96	136.80	308.28	− 1	+ 9
6	−402.63	+69.52	−204.65	+854.55	−1184.01	−355.66	+136.96	−307.98	− 3	+ 8
7	402.61	69.82	204.63	854.85	1184.00	355.36	137.12	307.68	− 5	+ 6
8	402.61	70.12	204.63	855.16	1183.99	355.06	137.27	307.38	− 6	+ 3
9	402.61	70.43	204.63	855.46	1183.99	354.75	137.42	307.07	− 6	− 1
10	402.61	70.73	204.63	855.77	1184.00	354.45	137.56	306.77	− 4	− 5
11	−402.62	+71.04	−204.64	+856.07	−1184.01	−354.14	+137.69	−306.46	− 1	− 8
12	402.64	71.34	204.66	856.38	1184.02	353.84	137.82	306.15	+ 3	−10
13	402.66	71.65	204.68	856.69	1184.04	353.53	137.94	305.83	+ 7	− 9
14	402.69	71.96	204.71	857.00	1184.07	353.22	138.06	305.52	+11	− 6
15	402.72	72.26	204.74	857.31	1184.10	352.92	138.17	305.21	+12	− 2
16	−402.76	+72.56	−204.78	+857.61	−1184.14	−352.61	+138.28	−304.89	+12	+ 3
17	402.81	72.86	204.83	857.92	1184.19	352.31	138.39	304.58	+ 8	+ 8
18	402.86	73.17	204.88	858.22	1184.24	352.00	138.48	304.27	+ 4	+11
19	402.91	73.47	204.94	858.53	1184.29	351.70	138.57	303.95	− 2	+11
20	402.97	73.78	205.00	858.83	1184.35	351.39	138.66	303.63	− 7	+ 8
21	−403.04	+74.08	−205.07	+859.14	−1184.42	−351.09	+138.74	−303.31	−11	+ 4
22	403.11	74.39	205.14	859.44	1184.49	350.78	138.81	302.99	−12	− 1
23	403.19	74.70	205.22	859.75	1184.57	350.48	138.88	302.67	−11	− 6
24	403.28	75.01	205.31	860.05	1184.66	350.17	138.94	302.35	− 7	−10
25	403.37	75.31	205.40	860.35	1184.75	349.87	139.00	302.03	− 3	−11
26	−403.46	+75.62	−205.49	+860.66	−1184.84	−349.56	+139.05	−301.70	+ 1	−10
27	403.56	75.92	205.60	860.96	1184.94	349.26	139.09	301.38	+ 4	− 7
28	403.67	76.22	205.70	861.26	1185.05	348.96	139.13	301.06	+ 5	− 3
29	403.78	76.51	205.82	861.55	1185.16	348.67	139.17	300.74	+ 6	+ 2
30	403.90	76.81	205.94	861.85	1185.27	348.37	139.20	300.42	+ 4	+ 5
Juli 1	−404.02	+77.10	−206.06	+862.14	−1185.40	−348.08	+139.22	−300.10	+ 2	+ 8
2	404.15	77.39	206.19	862.43	1185.52	347.79	139.24	299.78	0	+ 9
3	−404.29	+77.68	−206.33	+862.72	−1185.66	−347.50	+139.25	−299.46	− 3	+ 8
Mittl. Ort	″ −420.02	″ +78.25	″ −222.02	″ +863.28	″ −1201.47	″ −346.91	″ +114.75	″ −307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1947

Koordinaten der scheinbaren Örter für 12^{h} Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^{m}56$		BD +89° 3 Gr. $9^{m}06$		BD +89° 37 Gr. $10^{m}06$		CPD −89° 38 Gr. $9^{m}5$		Kurzperiod. Nutationsglieder*)	
1947	x	y	x	y	x	y	x	y	in x Einh. 0″01	in y
	″	″	″	″	″	″	″	″		
Juli 3	−404.29	+77.68	−206.33	+862.72	−1185.66	−347.50	+139.25	−299.46	− 3	+ 8
4	404.43	77.97	206.47	863.01	1185.80	347.21	139.25	299.15	− 5	+ 7
5	404.57	78.26	206.62	863.30	1185.94	346.92	139.25	298.83	− 6	+ 4
6	404.72	78.55	206.77	863.59	1186.09	346.63	139.25	298.51	− 6	0
7	404.87	78.83	206.92	863.87	1186.24	346.35	139.23	298.19	− 5	− 4
8	−405.03	+79.12	−207.08	+864.15	−1186.40	−346.06	+139.22	−297.87	− 3	− 7
9	405.19	79.40	207.25	864.43	1186.57	345.78	139.19	297.56	+ 1	− 9
10	405.36	79.68	207.42	864.71	1186.73	345.50	139.16	297.24	+ 6	−10
11	405.54	79.96	207.59	864.99	1186.91	345.22	139.13	296.93	+10	− 8
12	405.72	80.23	207.77	865.27	1187.09	344.95	139.09	296.61	+12	− 4
13	−405.91	+80.51	−207.96	+865.54	−1187.27	−344.67	+139.04	−296.30	+13	+ 1
14	406.10	80.78	208.15	865.81	1187.46	344.40	138.99	295.99	+11	+ 6
15	406.29	81.05	208.34	866.08	1187.65	344.13	138.93	295.68	+ 7	+10
16	406.49	81.32	208.54	866.35	1187.85	343.86	138.87	295.37	+ 1	+11
17	406.70	81.58	208.75	866.61	1188.05	343.60	138.81	295.07	− 4	+10
18	−406.91	+81.84	−208.96	+866.87	−1188.26	−343.34	+138.73	−294.76	− 9	+ 6
19	407.12	82.10	209.17	867.13	1188.48	343.08	138.65	294.46	−11	+ 1
20	407.34	82.36	209.39	867.39	1188.69	342.82	138.57	294.16	−11	− 4
21	407.57	82.61	209.62	867.64	1188.92	342.57	138.48	293.86	− 8	− 8
22	407.80	82.87	209.85	867.90	1189.15	342.31	138.38	293.57	− 5	−11
23	−408.03	+83.11	−210.08	+868.14	−1189.38	−342.07	+138.28	−293.27	− 1	−10
24	408.27	83.36	210.32	868.39	1189.62	341.82	138.17	292.98	+ 3	− 8
25	408.51	83.60	210.56	868.63	1189.86	341.58	138.06	292.69	+ 5	− 4
26	408.76	83.85	210.81	868.88	1190.11	341.33	137.95	292.40	+ 5	0
27	409.01	84.08	211.06	869.11	1190.35	341.10	137.82	292.11	+ 5	+ 4
28	−409.26	+84.32	−211.32	+869.35	−1190.61	−340.86	+137.70	−291.83	+ 3	+ 7
29	409.52	84.55	211.58	869.58	1190.87	340.63	137.56	291.55	0	+ 9
30	409.78	84.78	211.84	869.81	1191.13	340.40	137.42	291.27	− 3	+ 9
31	410.05	85.00	212.11	870.03	1191.39	340.18	137.28	291.00	− 5	+ 7
Aug. 1	410.32	85.22	212.38	870.25	1191.67	339.96	137.13	290.73	− 6	+ 5
2	−410.60	+85.44	−212.66	+870.47	−1191.94	−339.74	+136.97	−290.46	− 7	+ 2
3	410.88	85.65	212.94	870.68	1192.22	339.53	136.81	290.20	− 6	− 2
4	411.16	85.86	213.22	870.89	1192.50	339.32	136.65	289.94	− 4	− 6
5	411.45	86.07	213.51	871.10	1192.79	339.11	136.48	289.68	− 1	− 8
6	411.74	86.28	213.80	871.31	1193.08	338.90	136.31	289.42	+ 3	− 9
7	−412.03	+86.48	−214.10	+871.51	−1193.37	−338.70	+136.13	−289.17	+ 8	− 8
8	412.33	86.68	214.40	871.70	1193.67	338.51	135.95	288.92	+11	− 5
9	−412.63	+86.87	−214.70	+871.90	−1193.97	−338.31	+135.76	−288.68	+12	− 1
	″	″	″	″	″	″	″	″		
Mittl. Ort	−420.02	+78.25	−222.02	+863.28	−1201.47	−346.91	+114.75	−307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1947

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m\!.56$		BD +89° 3 Gr. $9^m\!.06$		BD +89° 37 Gr. $10^m\!.06$		CPD −89° 38 Gr. $9^m\!.5$		Kurzperiod. Nutations-glieder*)	
1947	x	y	x	y	x	y	x	y	in x	in y
	″	″	″	″	″	″	″	″	Einh. 0″.01	
Aug. 9	−412.63	+86.87	−214.70	+871.90	−1193.97	−338.31	+135.76	−288.68	+12	− 1
10	412.94	87.06	215.00	872.08	1194.28	338.13	135.57	288.44	+12	+ 4
11	413.24	87.24	215.31	872.27	1194.58	337.94	135.37	288.21	+ 9	+ 8
12	413.56	87.42	215.62	872.45	1194.90	337.76	135.17	287.98	+ 4	+11
13	413.87	87.60	215.94	872.62	1195.21	337.59	134.96	287.75	− 1	+11
14	−414.19	+87.78	−216.26	+872.80	−1195.53	−337.41	+134.75	−287.53	− 6	+ 8
15	414.51	87.95	216.58	872.97	1195.84	337.24	134.54	287.31	−10	+ 4
16	414.83	88.12	216.90	873.14	1196.17	337.07	134.32	287.09	−11	− 2
17	415.16	88.28	217.23	873.30	1196.49	336.91	134.10	286.88	− 9	− 7
18	415.49	88.44	217.56	873.46	1196.82	336.75	133.88	286.67	− 6	−10
19	−415.82	+88.59	−217.89	+873.61	−1197.15	−336.60	+133.65	−286.47	− 2	−11
20	416.16	88.74	218.23	873.76	1197.49	336.45	133.42	286.27	+ 2	− 9
21	416.50	88.89	218.57	873.91	1197.83	336.30	133.18	286.08	+ 4	− 6
22	416.84	89.03	218.91	874.05	1198.17	336.16	132.94	285.89	+ 6	− 2
23	417.19	89.17	219.26	874.19	1198.52	336.02	132.69	285.70	+ 5	+ 3
24	−417.53	+89.31	−219.60	+874.33	−1198.86	−335.89	+132.44	−285.52	+ 3	+ 6
25	417.88	89.44	219.95	874.46	1199.21	335.76	132.19	285.34	+ 1	+ 9
26	418.23	89.57	220.30	874.59	1199.56	335.63	131.94	285.17	− 2	+ 9
27	418.59	89.69	220.66	874.71	1199.92	335.51	131.68	285.01	− 5	+ 8
28	418.94	89.81	221.01	874.83	1200.27	335.39	131.42	284.85	− 7	+ 6
29	−419.30	+89.92	−221.37	+874.94	−1200.63	−335.28	+131.15	−284.69	− 7	+ 3
30	419.66	90.03	221.73	875.05	1200.99	335.17	130.89	284.54	− 7	− 1
31	420.02	90.13	222.09	875.15	1201.35	335.07	130.61	284.40	− 5	− 5
Sept. 1	420.39	90.23	222.46	875.25	1201.72	334.97	130.34	284.26	− 2	− 8
2	420.76	90.32	222.83	875.34	1202.09	334.87	130.06	284.12	+ 2	− 9
3	−421.13	+90.41	−223.20	+875.43	−1202.46	−334.78	+129.78	−283.99	+ 6	− 9
4	421.49	90.50	223.57	875.52	1202.82	334.69	129.51	283.87	+ 9	− 6
5	421.87	90.58	223.94	875.60	1203.20	334.61	129.22	283.75	+11	− 3
6	422.24	90.66	224.31	875.68	1203.57	334.53	128.94	283.64	+12	+ 2
7	422.61	90.73	224.69	875.75	1203.94	334.46	128.65	283.53	+10	+ 7
8	−422.99	+90.80	−225.06	+875.82	−1204.32	−334.39	+128.36	−283.43	+ 6	+10
9	423.37	90.86	225.44	875.88	1204.70	334.33	128.07	283.34	+ 1	+11
10	423.74	90.92	225.82	875.94	1205.07	334.27	127.78	283.25	− 4	+ 9
11	424.13	90.97	226.21	875.99	1205.46	334.22	127.48	283.17	− 8	+ 6
12	424.51	91.02	226.59	876.04	1205.84	334.17	127.18	283.09	−10	0
13	−424.89	+91.07	−226.97	+876.09	−1206.22	−334.12	+126.88	−283.02	−10	− 5
14	425.28	91.11	227.36	876.13	1206.60	334.08	126.58	282.95	− 7	− 9
15	−425.66	+91.15	−227.74	+876.17	−1206.99	−334.05	+126.28	−282.89	− 3	−11
	″	″	″	″	″	″	″	″		
Mittl. Ort	−420.02	+78.25	−222.02	+863.28	−1201.47	−346.91	+114.75	−307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1947

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Nutations-glieder*)	
1947	x	y	x	y	x	y	x	y	in x Einh. 0".01	in y
	″	″	″	″	″	″	″	″		
Sept. 15	−425.66	+91.15	−227.74	+876.17	−1206.99	−334.05	+126.28	−282.89	− 3	−11
16	426.04	91.18	228.12	876.20	1207.37	334.02	125.98	282.84	+ 1	−10
17	426.43	91.20	228.51	876.22	1207.76	333.99	125.67	282.79	+ 4	− 8
18	426.82	91.23	228.90	876.25	1208.14	333.97	125.37	282.75	+ 6	− 4
19	427.21	91.24	229.29	876.26	1208.53	333.96	125.06	282.71	+ 6	+ 1
20	−427.60	+91.25	−229.68	+876.27	−1208.92	−333.95	+124.76	−282.68	+ 5	+ 5
21	427.99	91.26	230.07	876.28	1209.31	333.94	124.45	282.66	+ 2	+ 8
22	428.38	91.26	230.46	876.28	1209.70	333.94	124.14	282.64	− 1	+ 9
23	428.77	91.26	230.85	876.28	1210.09	333.94	123.83	282.62	− 4	+ 9
24	429.16	91.25	231.24	876.27	1210.48	333.95	123.53	282.62	− 6	+ 7
25	−429.55	+91.24	−231.62	+876.26	−1210.87	−333.96	+123.22	−282.61	− 7	+ 4
26	429.94	91.23	232.01	876.25	1211.26	333.98	122.92	282.62	− 7	0
27	430.33	91.20	232.40	876.22	1211.65	334.00	122.61	282.63	− 6	− 4
28	430.72	91.18	232.79	876.20	1212.04	334.03	122.30	282.65	− 4	− 7
29	431.11	91.15	233.19	876.17	1212.43	334.06	121.99	282.67	0	− 9
30	−431.50	+91.11	−233.58	+876.13	−1212.82	−334.10	+121.69	−282.71	+ 4	− 9
Okt. 1	431.89	91.07	233.97	876.09	1213.21	334.14	121.38	282.74	+ 8	− 8
2	432.28	91.02	234.37	876.04	1213.60	334.19	121.07	282.79	+10	− 4
3	432.67	90.97	234.76	875.99	1213.99	334.24	120.76	282.84	+11	0
4	433.06	90.91	235.15	875.93	1214.38	334.30	120.46	282.89	+10	+ 5
5	−433.45	+90.85	−235.54	+875.87	−1214.77	−334.36	+120.16	−282.96	+ 7	+ 9
6	433.83	90.79	235.92	875.81	1215.15	334.42	119.86	283.02	+ 2	+11
7	434.22	90.72	236.31	875.74	1215.54	334.49	119.56	283.10	− 3	+10
8	434.60	90.64	236.69	875.66	1215.92	334.57	119.26	283.18	− 7	+ 7
9	434.99	90.56	237.08	875.58	1216.31	334.65	118.96	283.26	− 9	+ 2
10	−435.37	+90.48	−237.46	+875.50	−1216.69	−334.73	+118 67	−283.35	−10	− 3
11	435.75	90.39	237.84	875.41	1217.07	334.82	118.38	283.45	− 8	− 7
12	436.13	90.29	238.22	875.31	1217.45	334.92	118.09	283.55	− 5	−10
13	436.51	90.19	238.60	875.21	1217.83	335.02	117.80	283.66	0	−11
14	436.89	90.09	238.98	875.11	1218.21	335.12	117.51	283.77	+ 3	− 9
15	−437.26	+89.98	−239.36	+875.00	−1218.58	−335.23	+117.23	−283.89	+ 6	− 5
16	437.64	89.87	239.73	874.89	1218.96	335.34	116.95	284.02	+ 6	− 1
17	438.01	89.75	240.10	874.77	1219.33	335.46	116.67	284.15	+ 6	+ 4
18	438.38	89.63	240.47	874.65	1219.70	335.58	116.39	284.28	+ 4	+ 7
19	438.75	89.50	240.84	874.52	1220.07	335.71	116.12	284.43	+ 1	+ 9
20	−439.11	+89.36	−241.21	+874.38	−1220.43	−335.85	+115.84	−284.57	− 2	+ 9
21	439.48	89.22	241.58	874.24	1220.80	335.99	115.58	284.73	− 5	+ 8
22	−439.84	+89.08	−241.94	+874.10	−1221.16	−336.13	+115.31	−284.89	− 7	+ 5
	″	″	″	″	″	″	″	″		
Mittl. Ort	−420.02	+78.25	−222.02	+863.28	−1201.47	−346.91	+114.75	−307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10^m.56		BD +89° 3 Gr. 9^{m}06		BD +89° 37 Gr. 10^m.06		CPD −89° 38 Gr. 9^m.5		Kurzperiod. Nutations-glieder*)	
1947	x	y	x	y	x	y	$-x$	y	in x	in y
	″	″	″	″	″	″	″	″	Einh. 0″.01	
Okt. 22	−439.84	+89.08	−241.94	+874.10	−1221.16	−336.13	+115.31	−284.89	− 7	+ 5
23	440.20	88.93	242.30	873.96	1221.52	336.28	115.05	285.06	− 8	+ 2
24	440.56	88.78	242.66	873.81	1221.88	336.43	114.79	285.23	− 7	− 2
25	440.92	88.63	243.02	873.65	1222.24	336.58	114.53	285.40	− 5	− 6
26	441.27	88.47	243.37	873.49	1222.59	336.74	114.28	285.58	− 1	− 8
27	−441.62	+88.30	−243.72	+873.33	−1222.94	−336.91	+114.03	−285.77	+ 3	− 9
28	441.97	88.13	244.07	873.16	1223.29	337.08	113.79	285.96	+ 7	− 9
29	442.31	87.96	244.41	872.98	1223.63	337.26	113.55	286.16	+10	− 6
30	442.65	87.78	244.75	872.80	1223.97	337.44	113.32	286.36	+11	− 2
31	442.99	87.59	245.09	872.62	1224.31	337.63	113.09	286.57	+11	+ 3
Nov. 1	−443.33	+87.40	−245.43	+872.43	−1224.65	−337.82	+112.86	−286.78	+ 8	+ 8
2	443.66	87.21	245.76	872.24	1224.98	338.01	112.63	287.00	+ 4	+11
3	444.00	87.01	246.10	872.04	1225.32	338.21	112.41	287.22	− 1	+11
4	444.32	86.81	246.42	871.84	1225.64	338.41	112.20	287.44	− 6	+ 9
5	444.65	86.61	246.75	871.64	1225.97	338.62	111.99	287.67	− 9	+ 4
6	−444.97	+86.40	−247.07	+871.43	−1226.29	−338.83	+111.78	−287.91	−10	− 1
7	445.29	86.19	247.39	871.22	1226.61	339.04	111.58	288.14	− 9	− 6
8	445.60	85.97	247.70	871.00	1226.92	339.26	111.39	288.39	− 6	− 9
9	445.91	85.75	248.01	870.78	1227.23	339.48	111.20	288.63	− 2	−11
10	446.22	85.52	248.32	870.55	1227.54	339.71	111.01	288.88	+ 2	−10
11	−446.52	+85.29	−248.62	+870.32	−1227.84	−339.94	+110.83	−289.14	+ 5	− 7
12	446.82	85.06	248.92	870.09	1228.14	340.17	110.65	289.40	+ 6	− 3
13	447.11	84.82	249.22	869.85	1228.43	340.41	110.48	289.66	+ 6	+ 2
14	447.41	84.58	249.51	869.61	1228.73	340.65	110.32	289.93	+ 5	+ 6
15	447.69	84.33	249.80	869.37	1229.01	340.90	110.16	290.20	+ 2	+ 8
16	−447.97	+84.08	−250.08	+869.12	−1229.29	−341.15	+110.01	−290.47	− 1	+ 9
17	448.25	83.83	250.36	868.87	1229.57	341.40	109.86	290.75	− 4	+ 9
18	448.53	83.57	250.63	868.61	1229.85	341.66	109.72	291.03	− 6	+ 7
19	448.79	83.31	250.90	868.35	1230.11	341.92	109.58	291.31	− 7	+ 3
20	449.06	83.04	251.17	868.08	1230.38	342.19	109.45	291.60	− 7	− 1
21	−449.32	+82.77	−251.43	+867.81	−1230.64	−342.46	+109.33	−291.89	− 6	− 5
22	449.57	82.50	251.69	867.54	1230.90	342.73	109.21	292.18	− 3	− 8
23	449.82	82.23	251.94	867.27	1231.15	343.01	109.09	292.47	+ 1	−10
24	450.07	81.95	252.18	866.99	1231.39	343.28	108.98	292.77	+ 6	− 9
25	450.31	81.67	252.42	866.71	1231.63	343.57	108.88	293.07	+ 9	− 7
26	−450.54	+81.38	−252.66	+866.42	−1231.87	−343.85	+108.79	−293.37	+12	− 3
27	450.77	81.10	252.89	866.14	1232.10	344.14	108.70	293.68	+12	+ 1
28	−451.00	+80.80	−253.11	+865.84	−1232.32	−344.43	+108.62	−293.98	+10	+ 6
	″	″	″	″	″	″	″	″		
Mittl. Ort	−420.02	+78.25	−222.02	+863.28	−1201.47	−346.91	+114.75	−307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1947

Koordinaten der scheinbaren Örter für 12^{h} Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^{m}.56$		BD +89° 3 Gr. $9^{m}.06$		BD +89° 37 Gr. $10^{m}.06$		CPD −89° 38 Gr. $9^{m}.5$		Kurzperiod. Nutationsglieder*)	
1947	x	y	x	y	x	y	x	y	in x	in y
	"	"	"	"	"	"	"	"	Einh. 0".01	
Nov. 28	−451.00	+80.80	−253.11	+865.84	−1232.32	−344.43	+108.62	−293.98	+10	+ 6
29	451.22	80.51	253.33	865.55	1232.54	344.73	108.54	294.29	+ 6	+10
30	451.43	80.21	253.55	865.25	1232.76	345.03	108.47	294.60	+ 1	+11
Dez. 1	451.64	79.91	253.76	864.95	1232.97	345.33	108.41	294.92	− 4	+10
2	451.85	79.61	253.97	864.65	1233.17	345.63	108.35	295.23	− 9	+ 6
3	−452.05	+79.30	−254.17	+864.35	−1233.37	−345.94	+108.30	−295.55	−11	+ 1
4	452.24	79.00	254.36	864.04	1233.57	346.25	108.25	295.86	−11	− 4
5	452.43	78.69	254.55	863.73	1233.75	346.56	108.21	296.18	− 8	− 8
6	452.61	78.37	254.73	863.42	1233.93	346.87	108.18	296.50	− 4	−11
7	452.78	78.06	254.90	863.10	1234.11	347.19	108.16	296.82	0	−10
8	−452.95	+77.74	−255.07	+862.79	−1234.28	−347.51	+108.14	−297.15	+ 3	− 8
9	453.12	77.42	255.24	862.47	1234.44	347.83	108.12	297.47	+ 6	− 4
10	453.28	77.10	255.40	862.15	1234.60	348.15	108.12	297.80	+ 6	0
11	453.43	76.77	255.55	861.82	1234.75	348.48	108.12	298.13	+ 5	+ 4
12	453.58	76.45	255.70	861.50	1234.90	348.81	108.13	298.46	+ 3	+ 7
13	−453.72	+76.12	−255.84	+861.17	−1235.04	−349.13	+108.14	−298.78	0	+ 9
14	453.86	75.79	255.98	860.84	1235.18	349.46	108.16	299.11	− 3	+ 9
15	453.99	75.46	256.11	860.51	1235.31	349.79	108.18	299.44	− 6	+ 7
16	454.11	75.13	256.23	860.18	1235.43	350.13	108.22	299.77	− 7	+ 5
17	454.22	74.79	256.34	859.85	1235.54	350.46	108.26	300.09	− 7	+ 1
18	−454.33	+74.46	−256.45	+859.52	−1235.65	−350.80	+108.30	−300.42	− 6	− 3
19	454.44	74.12	256.56	859.18	1235.76	351.14	108.35	300.75	− 4	− 7
20	454.53	73.78	256.65	858.84	1235.85	351.48	108.41	301.08	0	− 9
21	454.62	73.44	256.74	858.50	1235.94	351.82	108.48	301.41	+ 4	−10
22	454.71	73.10	256.83	858.16	1236.03	352.16	108.55	301.74	+ 8	− 8
23	−454.78	+72.76	−256.90	+857.83	−1236.10	−352.50	+108.63	−302.06	+11	− 5
24	454.86	72.42	256.98	857.49	1236.18	352.84	108.71	302.39	+13	− 1
25	454.92	72.08	257.04	857.15	1236.24	353.18	108.80	302.71	+12	+ 4
26	454.98	71.74	257.10	856.81	1236.30	353.53	108.90	303.03	+ 9	+ 9
27	455.03	71.40	257.15	856.47	1236.35	353.87	109.00	303.36	+ 4	+11
28	−455.08	+71.06	−257.20	+856.12	−1236.40	−354.21	+109.11	−303.68	− 2	+11
29	455.11	70.71	257.23	855.78	1236.43	354.55	109.23	303.99	− 7	+ 8
30	455.15	70.37	257.27	855.44	1236.47	354.90	109.35	304.31	−10	+ 4
31	455.17	70.03	257.29	855.09	1236.49	355.24	109.48	304.63	−11	− 2
32	−455.19	+69.69	−257.31	+854.75	−1236.51	−355.58	+109.61	−304.95	−10	− 7
	"	"	"	"	"	"	"	"		
Mittl. Ort	−420.02	+78.25	−222.02	+863.28	−1201.47	−346.91	+114.75	−307.15		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Formeln
zur Reduktion auf den scheinbaren Ort

$$
\begin{aligned}
A = {} & t-(0.34213+0.00034\,T)\sin\Omega+0.00415\sin 2\Omega-0.02525\sin 2L_{\odot}\\
& +0.00250\sin M_{\odot}-0.00099\sin(2L_{\odot}+M_{\odot})+0.00042\sin(2L_{\odot}-M_{\odot})\\
& +0.00024\sin(2L_{\odot}-\Omega)+0.00010\sin(2L_{☾}-2M_{☾}-\Omega)\\
& +0.00008\sin(2L_{\odot}-2L_{☾}+2M_{☾})
\end{aligned}
$$

$$
\begin{aligned}
A' = {} & -0.00405\sin 2L_{☾}+0.00135\sin M_{☾}-0.00067\sin(2L_{☾}-\Omega)\\
& -0.00052\sin(2L_{☾}+M_{☾})+0.00030\sin(2L_{☾}-2L_{\odot}-M_{☾})\\
& +0.00022\sin(2L_{☾}-M_{☾})+0.00012\sin(2L_{☾}-2L_{\odot})\\
& +0.00012\sin(M_{☾}+\Omega)+0.00012\sin(M_{☾}-\Omega)\\
& -0.00010\sin(4L_{☾}-2L_{\odot}-M_{☾})-0.00008\sin(2L_{☾}+M_{☾}-\Omega)
\end{aligned}
$$

$$
\begin{aligned}
B = {} & -(9''.210+0''.001\,T)\cos\Omega+0''.090\cos 2\Omega-0''.551\cos 2L_{\odot}\\
& -0''.022\cos(2L_{\odot}+M_{\odot})+0''.009\cos(2L_{\odot}-M_{\odot})\\
& +0''.007\cos(2L_{\odot}-\Omega)+0''.003\cos(2L_{☾}-2M_{☾}-\Omega)
\end{aligned}
$$

$$
\begin{aligned}
B' = {} & -0''.089\cos 2L_{☾}-0''.018\cos(2L_{☾}-\Omega)-0''.011\cos(2L_{☾}+M_{☾})\\
& +0''.005\cos(2L_{☾}-M_{☾})+0''.003\cos(M_{☾}+\Omega)-0''.003\cos(M_{☾}-\Omega)\\
& -0''.002\cos(4L_{☾}-2L_{\odot}-M_{☾})-0''.002\cos(2L_{☾}+M_{☾}-\Omega)
\end{aligned}
$$

$$C = -20''.47\cos\odot\cos\varepsilon$$

$$D = -20''.47\sin\odot$$

$$E = -(0^{s}.0029-0^{s}.0004\,T)\sin\Omega$$

T Zeit seit 1900.0 in Einheiten von 100 tropischen Jahren,
t Zeit seit Beginn des annus fictus in Bruchteilen des tropischen Jahres;
$t = 0$ für 1947 Januar $1^{d}.1968$ Weltzeit,

$a = m + \frac{1}{15}\,n\sin\alpha\,\mathrm{tg}\,\delta$	$a' = n\cos\alpha$
$b = \frac{1}{15}\cos\alpha\,\mathrm{tg}\,\delta$	$b' = -\sin\alpha$
$c = \frac{1}{15}\cos\alpha\sec\delta$	$c' = \mathrm{tg}\,\varepsilon\cos\delta-\sin\alpha\sin\delta$
$d = \frac{1}{15}\sin\alpha\sec\delta$	$d' = \cos\alpha\sin\delta$

Für 1947.0 gilt: $m = +3^{s}.0732$, $n = +20''.043$, $\varepsilon = 23^{\circ}\,26'\,46''.24$

$$\alpha_{\text{app.}} = \alpha_{1947.0}+t\,\mu_{\alpha}+Aa+Bb+Cc+Dd+E+[A'a+B'b]$$
$$\delta_{\text{app.}} = \delta_{1947.0}+t\,\mu_{\delta}+Aa'+Bb'+Cc'+Dd'+[A'a'+B'b']$$

μ_{α}, μ_{δ} jährliche Eigenbewegung in Rektaszension, bez. Deklination.

Setzt man

$f = mA+E$	$f' = mA'$	$i = C\,\mathrm{tg}\,\varepsilon$
$g\sin G = B$	$g'\sin G' = B'$	$h\sin H = C$
$g\cos G = nA$	$g'\cos G' = nA'$	$h\cos H = D,$

so wird:

$$
\begin{aligned}
\alpha_{\text{app.}} = {} & \alpha_{1947.0}+t\,\mu_{\alpha}+f+\tfrac{1}{15}\,g\sin(G+\alpha)\,\mathrm{tg}\,\delta+\tfrac{1}{15}\,h\sin(H+\alpha)\sec\delta\\
& +[f'+\tfrac{1}{15}\,g'\sin(G'+\alpha)\,\mathrm{tg}\,\delta]\\
\delta_{\text{app.}} = {} & \delta_{1947.0}+t\,\mu_{\delta}+g\cos(G+\alpha)+h\cos(H+\alpha)\sin\delta+i\cos\delta\\
& +[g'\cos(G'+\alpha)]
\end{aligned}
$$

Reduktionsgrößen 1947

Tag	0h Weltzeit								
	Sternzeit Greenwich	t	f	log g	G	log h	H	log i	i
1947	h	a	s		h m		h m		"
Jan. 0	6.6	−0.0033	−0.970	0.8353	13 31.4	1.3103	23 28.0	0.0913n	−1.234
1	6.7	−0.0005	0.958	0.8312	13 32.8	1.3101	23 24.2	0.1386n	1.376
2	6.7	+0.0022	0.947	0.8272	13 34.3	1.3099	23 20.5	0.1818n	1.520
3	6.8	0.0049	0.935	0.8232	13 35.8	1.3097	23 16.7	0.2206n	1.662
4	6.9	0.0077	0.924	0.8192	13 37.3	1.3094	23 12.9	0.2560n	1.803
5	6.9	0.0104	0.912	0.8152	13 38.9	1.3092	23 9.2	0.2887n	1.944
6	7.0	0.0132	−0.901	0.8112	13 40.6	1.3089	23 5.4	0.3189n	−2.084
7	7.0	0.0159	0.890	0.8072	13 42.3	1.3086	23 1.6	0.3471n	2.224
8	7.1	0.0186	0.879	0.8033	13 44.1	1.3082	22 57.8	0.3735n	2.363
9	7.2	0.0214	0.867	0.7994	13 45.9	1.3079	22 54.0	0.3983n	2.502
10	7.2	0.0241	0.856	0.7955	13 47.7	1.3075	22 50.2	0.4214n	2.639
11	7.3	0.0268	0.845	0.7917	13 49.6	1.3071	22 46.4	0.4434n	2.776
12	7.4	0.0296	−0.834	0.7880	13 51.5	1.3067	22 42.6	0.4640n	−2.911
13	7.4	0.0323	0.823	0.7842	13 53.5	1.3063	22 38.8	0.4837n	3.046
14	7.5	0.0351	0.812	0.7805	13 55.5	1.3058	22 35.0	0.5026n	3.181
15	7.6	0.0378	0.801	0.7769	13 57.6	1.3054	22 31.1	0.5202n	3.313
16	7.6	0.0406	0.791	0.7732	13 59.7	1.3049	22 27.3	0.5372n	3.445
17	7.7	0.0433	0.780	0.7697	14 1.8	1.3044	22 23.4	0.5533n	3.575
18	7.8	0.0460	−0.770	0.7663	14 4.0	1.3039	22 19.6	0.5688n	−3.705
19	7.8	0.0488	0.759	0.7629	14 6.2	1.3034	22 15.7	0.5835n	3.833
20	7.9	0.0515	0.749	0.7595	14 8.5	1.3028	22 11.8	0.5977n	3.960
21	8.0	0.0542	0.738	0.7562	14 10.8	1.3023	22 7.9	0.6112n	4.085
22	8.0	0.0570	0.728	0.7530	14 13.1	1.3017	22 4.1	0.6243n	4.210
23	8.1	0.0597	0.718	0.7498	14 15.4	1.3012	22 0.1	0.6369n	4.334
24	8.2	0.0625	−0.708	0.7467	14 17.8	1.3006	21 56.2	0.6489n	−4.456
25	8.2	0.0652	0.698	0.7437	14 20.2	1.3000	21 52.3	0.6605n	4.576
26	8.3	0.0680	0.688	0.7407	14 22.7	1.2994	21 48.4	0.6716n	4.695
27	8.4	0.0707	0.678	0.7379	14 25.1	1.2988	21 44.4	0.6823n	4.812
28	8.4	0.0734	0.669	0.7351	14 27.6	1.2982	21 40.5	0.6927n	4.928
29	8.5	0.0762	0.659	0.7324	14 30.1	1.2976	21 36.5	0.7026n	5.042
30	8.6	0.0789	−0.650	0.7298	14 32.6	1.2969	21 32.5	0.7121n	−5.154
31	8.6	0.0816	0.640	0.7273	14 35.1	1.2963	21 28.6	0.7214n	5.265
Febr. 1	8.7	0.0844	0.631	0.7248	14 37.6	1.2956	21 24.6	0.7304n	5.375
2	8.8	0.0871	0.622	0.7225	14 40.2	1.2950	21 20.6	0.7389n	5.482
3	8.8	0.0899	0.613	0.7202	14 42.9	1.2943	21 16.5	0.7472n	5.587
4	8.9	0.0926	0.604	0.7181	14 45.5	1.2936	21 12.5	0.7553n	5.692
5	9.0	0.0954	−0.595	0.7161	14 48.1	1.2930	21 8.5	0.7630n	−5.794
6	9.0	0.0981	0.586	0.7140	14 50.7	1.2923	21 4.4	0.7704n	5.894
7	9.1	0.1008	0.577	0.7120	14 53.3	1.2916	21 0.4	0.7776n	5.993
8	9.2	0.1036	0.568	0.7102	14 56.0	1.2910	20 56.3	0.7845n	6.089
9	9.2	0.1063	0.560	0.7085	14 58.6	1.2903	20 52.2	0.7913n	6.184
10	9.3	0.1090	−0.552	0.7068	15 1.2	1.2897	20 48.1	0.7978n	−6.277

Tag	0h Weltzeit										
	f′	g′	G′	Allgemeine Präzession seit 1947.0	Δψ	Δψ′	Mittlere Schiefe	Δε	Δε′	j	k
1947	s in 0.001	″ in 0.01	h	″	″	″ in 0.01	23° 26′ ″	″	″ in 0.01	in 0.001	
Jan. 0	−5	+10	16.7	−0.16	−15.69	−9	46.24	+2.66	+10	30	89
1	−12	11	15.3	−0.03	15.64	−19	46.24	2.67	+9	30	89
2	−16	12	13.8	+0.11	15.59	−27	46.23	2.69	+6	29	89
3	−18	12	12.4	0.24	15.54	−30	46.23	2.70	+1	29	89
4	−17	11	10.7	0.38	15.49	−27	46.23	2.72	−4	29	89
5	−11	11	8.8	0.52	15.44	−18	46.23	2.73	−8	28	89
6	−3	+10	6.8	+0.66	−15.39	−6	46.23	+2.75	−10	28	89
7	+5	10	4.7	0.79	15.34	+9	46.23	2.77	−10	28	89
8	+12	11	2.8	0.93	15.30	+20	46.23	2.79	−7	28	89
9	+17	11	0.8	1.07	15.25	+28	46.23	2.81	−3	27	89
10	+18	12	23.2	1.21	15.21	+29	46.22	2.83	+3	27	89
11	+15	12	21.8	1.35	15.16	+25	46.22	2.85	+7	27	89
12	+10	+12	20.3	+1.49	−15.12	+17	46.22	+2.87	+10	27	88
13	+4	11	18.9	1.62	15.08	+7	46.22	2.89	+10	27	88
14	−2	9	17.5	1.76	15.04	−3	46.22	2.91	+9	26	88
15	−6	7	15.7	1.90	15.00	−10	46.22	2.94	+6	26	88
16	−9	6	13.3	2.04	14.96	−14	46.22	2.96	+2	26	88
17	−9	6	10.7	2.17	14.92	−14	46.22	2.98	−2	26	88
18	−7	+7	8.7	+2.31	−14.89	−12	46.21	+3.01	−5	25	88
19	−4	8	7.2	2.45	14.86	−7	46.21	3.03	−8	25	88
20	0	9	6.0	2.58	14.83	0	46.21	3.06	−9	25	88
21	+4	9	4.9	2.72	14.79	+6	46.21	3.08	−9	25	88
22	+7	8	3.7	2.86	14.76	+12	46.21	3.11	−7	25	87
23	+9	7	2.1	2.99	14.73	+15	46.21	3.13	−4	25	87
24	+9	+6	0.0	+3.13	−14.71	+15	46.21	+3.16	0	24	87
25	+7	6	21.3	3.27	14.68	+12	46.21	3.18	+4	24	87
26	+3	8	19.1	3.41	14.66	+5	46.20	3.21	+7	24	87
27	−3	9	17.2	3.54	14.64	−5	46.20	3.24	+9	24	87
28	−9	11	15.8	3.68	14.62	−15	46.20	3.26	+9	24	87
29	−14	12	14.4	3.82	14.60	−23	46.20	3.29	+7	24	87
30	−17	+12	12.9	+3.96	−14.58	−29	46.20	+3.32	+3	23	86
31	−17	12	11.3	4.10	14.56	−28	46.20	3.34	−2	23	86
Febr. 1	−13	11	9.5	4.24	14.55	−22	46.20	3.37	−7	23	86
2	−7	11	7.7	4.37	14.54	−11	46.20	3.40	−10	23	86
3	+1	10	5.7	4.51	14.53	+2	46.19	3.43	−10	23	86
4	+9	10	3.7	4.65	14.52	+15	46.19	3.45	−9	23	86
5	+14	+10	1.7	+4.79	−14.51	+24	46.19	+3.48	−5	23	86
6	+17	11	23.8	4.92	14.51	+28	46.19	3.51	+1	23	86
7	+16	12	22.2	5.06	14.50	+26	46.19	3.54	+5	23	86
8	+11	12	20.7	5.20	14.50	+19	46.19	3.56	+9	22	85
9	+6	11	19.3	5.33	14.49	+9	46.19	3.59	+11	22	85
10	0	+10	17.9	+5.47	−14.49	−1	46.18	+3.62	+10	22	85

Tag	0h Weltzeit								
	Sternzeit Greenwich	*t*	*f*	log *g*	*G*	log *h*	*H*	log *i*	*i*
1947	h	a	s		h m		h m		″
Febr. 10	9.3	0.1090	—0.552	0.7068	15 1.2	1.2897	20 48.1	0.7978*n*	—6.277
11	9.3	0.1117	0.544	0.7052	15 3.8	1.2890	20 44.0	0.8039*n*	6.367
12	9.4	0.1144	0.535	0.7037	15 6.4	1.2884	20 39.9	0.8100*n*	6.456
13	9.5	0.1172	0.527	0.7023	15 8.9	1.2877	20 35.8	0.8158*n*	6.543
14	9.5	0.1199	0.519	0.7009	15 11.5	1.2871	20 31.6	0.8213*n*	6.627
15	9.6	0.1227	0.511	0.6996	15 14.1	1.2864	20 27.5	0.8267*n*	6.710
16	9.7	0.1254	—0.503	0.6984	15 16.7	1.2858	20 23.3	0.8319*n*	—6.790
17	9.7	0.1281	0.496	0.6972	15 19.2	1.2852	20 19.1	0.8368*n*	6.868
18	9.8	0.1309	0.488	0.6961	15 21.7	1.2846	20 15.0	0.8416*n*	6.944
19	9.9	0.1336	0.480	0.6951	15 24.1	1.2840	20 10.8	0.8462*n*	7.018
20	9.9	0.1363	0.473	0.6941	15 26.6	1.2834	20 6.6	0.8506*n*	7.090
21	10.0	0.1391	0.466	0.6932	15 29.1	1.2828	20 2.4	0.8549*n*	7.159
22	10.1	0.1418	—0.458	0.6923	15 31.6	1.2822	19 58.2	0.8589*n*	—7.226
23	10.1	0.1446	0.451	0.6915	15 34.0	1.2817	19 53.9	0.8628*n*	7.291
24	10.2	0.1473	0.443	0.6907	15 36.4	1.2811	19 49.7	0.8665*n*	7.354
25	10.3	0.1501	0.436	0.6899	15 38.7	1.2806	19 45.4	0.8701*n*	7.414
26	10.3	0.1528	0.429	0.6891	15 41.1	1.2801	19 41.2	0.8735*n*	7.473
27	10.4	0.1555	0.423	0.6884	15 43.4	1.2796	19 36.9	0.8767*n*	7.528
28	10.5	0.1583	—0.416	0.6878	15 45.7	1.2791	19 32.7	0.8798*n*	—7.582
März 1	10.5	0.1610	0.409	0.6872	15 48.0	1.2786	19 28.4	0.8826*n*	7.632
2	10.6	0.1637	0.402	0.6866	15 50.3	1.2782	19 24.1	0.8854*n*	7.681
3	10.7	0.1665	0.395	0.6860	15 52.5	1.2777	19 19.8	0.8880*n*	7.727
4	10.7	0.1692	0.388	0.6854	15 54.7	1.2773	19 15.5	0.8905*n*	7.771
5	10.8	0.1720	0.382	0.6849	15 56.9	1.2769	19 11.2	0.8928*n*	7.812
6	10.9	0.1747	—0.375	0.6843	15 59.1	1.2766	19 6.9	0.8949*n*	—7.851
7	10.9	0.1775	0.369	0.6837	16 1.2	1.2762	19 2.6	0.8970*n*	7.888
8	11.0	0.1802	0.362	0.6831	16 3.3	1.2759	18 58.3	0.8988*n*	7.922
9	11.1	0.1829	0.356	0.6825	16 5.4	1.2756	18 54.0	0.9006*n*	7.954
10	11.1	0.1857	0.350	0.6820	16 7.5	1.2753	18 49.6	0.9022*n*	7.983
11	11.2	0.1884	0.344	0.6814	16 9.6	1.2750	18 45.3	0.9036*n*	8.010
12	11.3	0.1911	—0.337	0.6808	16 11.7	1.2748	18 41.0	0.9049*n*	—8.034
13	11.3	0.1939	0.331	0.6802	16 13.7	1.2746	18 36.7	0.9062*n*	8.057
14	11.4	0.1966	0.324	0.6796	16 15.8	1.2744	18 32.3	0.9072*n*	8.076
15	11.5	0.1994	0.318	0.6790	16 17.8	1.2742	18 28.0	0.9082*n*	8.094
16	11.5	0.2021	0.312	0.6784	16 19.8	1.2741	18 23.7	0.9089*n*	8.108
17	11.6	0.2049	0.306	0.6777	16 21.7	1.2739	18 19.3	0.9096*n*	8.121
18	11.6	0.2076	—0.300	0.6770	16 23.7	1.2738	18 15.0	0.9101*n*	—8.130
19	11.7	0.2103	0.294	0.6763	16 25.6	1.2738	18 10.7	0.9105*n*	8.138
20	11.8	0.2131	0.287	0.6756	16 27.6	1.2737	18 6.3	0.9107*n*	8.141
21	11.8	0.2158	0.281	0.6748	16 29.5	1.2737	18 2.0	0.9108*n*	8.144
22	11.9	0.2185	0.275	0.6740	16 31.5	1.2737	17 57.7	0.9108*n*	8.144
23	12.0	0.2213	—0.269	0.6732	16 33.4	1.2737	17 53.3	0.9107*n*	—8.142

Tag	0h Weltzeit										
	f'	g'	G'	Allgemeine Präzession seit 1947.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1947	s in 0.001	" in 0.01	h	"	"	" in 0.01	23° 26' "	"	" in 0.01	in 0.001	
Febr. 10	0	+10	17.9	+ 5.47	−14.49	− 1	46.18	+3.62	+10	22	85
11	− 5	8	16.3	5.61	14.50	− 9	46.18	3.65	+ 7	22	85
12	− 8	7	14.2	5.74	14.50	−14	46.18	3.67	+ 4	22	85
13	− 9	6	11.5	5.88	14.50	−15	46.18	3.70	− 1	22	85
14	− 8	7	9.2	6.02	14.51	−13	46.18	3.73	− 5	22	85
15	− 5	8	7.5	6.16	14.52	− 8	46.18	3.75	− 8	22	84
16	− 1	+ 9	6.3	+ 6.29	−14.53	− 2	46.18	+3.78	− 9	22	84
17	+ 3	9	5.1	6.43	14.54	+ 5	46.18	3.80	− 9	22	84
18	+ 7	8	3.9	6.57	14.55	+11	46.17	3.83	− 7	22	84
19	+ 9	8	2.5	6.71	14.56	+15	46.17	3.85	− 5	22	84
20	+10	7	0.5	6.85	14.58	+17	46.17	3.88	− 1	22	84
21	+ 9	7	22.1	6.99	14.60	+14	46.17	3.90	+ 3	22	84
22	+ 5	+ 7	19.8	+ 7.12	−14.61	+ 8	46.17	+3.93	+ 7	21	84
23	0	9	17.9	7.26	14.63	0	46.17	3.95	+ 9	21	84
24	− 6	10	16.4	7.40	14.65	−10	46.17	3.97	+ 9	21	83
25	−12	11	15.0	7.54	14.67	−20	46.17	4.00	+ 8	21	83
26	−16	11	13.4	7.67	14.69	−26	46.16	4.02	+ 4	21	83
27	−17	11	11.7	7.81	14.72	−28	46.16	4.04	− 1	21	83
28	−14	+11	10.1	+ 7.95	−14.74	−24	46.16	+4.06	− 5	21	83
März 1	− 9	11	8.2	8.09	14.77	−15	46.16	4.08	− 9	21	83
2	− 1	10	6.3	8.23	14.80	− 2	46.16	4.10	−10	21	83
3	+ 6	10	4.4	8.37	14.83	+10	46.16	4.12	− 9	21	83
4	+12	10	2.4	8.50	14.86	+20	46.16	4.14	− 6	21	83
5	+16	10	0.5	8.64	14.89	+26	46.16	4.16	− 1	21	83
6	+16	+11	22.7	+ 8.78	−14.92	+26	46.15	+4.18	+ 4	21	83
7	+12	11	21.1	8.92	14.95	+20	46.15	4.19	+ 8	21	83
8	+ 7	11	19.6	9.05	14.98	+11	46.15	4.21	+10	21	82
9	+ 1	10	18.2	9.19	15.01	+ 2	46.15	4.23	+10	21	82
10	− 4	9	16.7	9.33	15.04	− 7	46.15	4.24	+ 8	21	82
11	− 8	7	14.8	9.46	15.08	−13	46.15	4.26	+ 5	21	82
12	−10	+ 6	12.4	+ 9.60	−15.11	−16	46.15	+4.27	+ 1	21	82
13	− 9	7	10.0	9.74	15.15	−15	46.15	4.28	− 3	21	82
14	− 6	8	8.1	9.87	15.18	−10	46.14	4.30	− 7	21	82
15	− 2	9	6.7	10.01	15.22	− 4	46.14	4.31	− 9	21	82
16	+ 2	10	5.5	10.15	15.25	+ 3	46.14	4.32	− 9	21	82
17	+ 6	9	4.3	10.29	15.29	+10	46.14	4.33	− 8	21	82
18	+ 9	+ 8	2.9	+10.42	−15.33	+15	46.14	+4.34	− 6	21	82
19	+10	7	1.0	10.56	15.37	+17	46.14	4.35	− 2	21	82
20	+ 9	7	22.8	10.70	15.40	+15	46.14	4.36	+ 2	21	82
21	+ 7	7	20.5	10.84	15.44	+11	46.13	4.37	+ 6	21	82
22	+ 2	9	18.5	10.98	15.47	+ 3	46.13	4.37	+ 9	21	82
23	− 4	+10	16.9	+11.12	−15.51	− 7	46.13	+4.38	+ 9	21	82

Reduktionsgrößen 1947

Tag	0h Weltzeit								
	Sternzeit Greenwich	t	f	log g	G	log h	H	log i	i
1947	h	a	s		h m		h m		″
März 23	12.0	0.2213	—0.269	0.6732	16 33.4	1.2737	17 53.3	0.9107n	—8.142
24	12.0	0.2240	0.263	0.6724	16 35.4	1.2738	17 49.0	0.9105n	8.137
25	12.1	0.2268	0.257	0.6715	16 37.3	1.2739	17 44.7	0.9101n	8.130
26	12.2	0.2295	0.250	0.6706	16 39.2	1.2740	17 40.4	0.9095n	8.119
27	12.2	0.2322	0.244	0.6697	16 41.1	1.2741	17 36.1	0.9089n	8.107
28	12.3	0.2349	0.238	0.6687	16 43.1	1.2742	17 31.8	0.9081n	8.093
29	12.4	0.2376	—0.232	0.6677	16 45.0	1.2744	17 27.5	0.9072n	—8.076
30	12.4	0.2404	0.225	0.6667	16 47.0	1.2746	17 23.2	0.9061n	8.056
31	12.5	0.2431	0.219	0.6657	16 48.9	1.2748	17 18.9	0.9049n	8.034
April 1	12.6	0.2458	0.213	0.6646	16 50.9	1.2750	17 14.6	0.9036n	8.010
2	12.6	0.2486	0.207	0.6635	16 52.8	1.2753	17 10.3	0.9022n	7.983
3	12.7	0.2513	0.200	0.6624	16 54.8	1.2756	17 6.1	0.9006n	7.954
4	12.8	0.2541	—0.194	0.6613	16 56.8	1.2759	17 1.8	0.8989n	—7.923
5	12.8	0.2568	0.187	0.6600	16 58.8	1.2762	16 57.6	0.8970n	7.889
6	12.9	0.2596	0.181	0.6587	17 0.8	1.2765	16 53.3	0.8950n	7.853
7	13.0	0.2623	0.174	0.6574	17 2.8	1.2769	16 49.1	0.8929n	7.815
8	13.0	0.2650	0.168	0.6561	17 4.9	1.2773	16 44.9	0.8906n	7.774
9	13.1	0.2678	0.161	0.6548	17 7.0	1.2777	16 40.6	0.8883n	7.732
10	13.2	0.2705	—0.154	0.6535	17 9.2	1.2781	16 36.5	0.8858n	—7.687
11	13.2	0.2732	0.148	0.6522	17 11.4	1.2786	16 32.3	0.8830n	7.639
12	13.3	0.2759	0.141	0.6508	17 13.6	1.2790	16 28.1	0.8802n	7.590
13	13.4	0.2786	0.134	0.6495	17 15.8	1.2795	16 23.9	0.8773n	7.538
14	13.4	0.2814	0.127	0.6481	17 18.0	1.2800	16 19.8	0.8742n	7.485
15	13.5	0.2841	0.120	0.6467	17 20.3	1.2805	16 15.6	0.8709n	7.429
16	13.6	0.2869	—0.112	0.6452	17 22.6	1.2810	16 11.5	0.8675n	—7.371
17	13.6	0.2896	0.105	0.6438	17 24.9	1.2815	16 7.4	0.8640n	7.311
18	13.7	0.2923	0.098	0.6423	17 27.3	1.2820	16 3.3	0.8602n	7.248
19	13.8	0.2951	0.091	0.6409	17 29.7	1.2826	15 59.2	0.8564n	7.184
20	13.8	0.2978	0.083	0.6394	17 32.2	1.2832	15 55.1	0.8523n	7.117
21	13.9	0.3005	0.076	0.6380	17 34.7	1.2837	15 51.0	0.8481n	7.049
22	13.9	0.3033	—0.068	0.6366	17 37.3	1.2843	15 46.9	0.8437n	—6.978
23	14.0	0.3060	0.061	0.6352	17 39.8	1.2849	15 42.9	0.8392n	6.905
24	14.1	0.3088	0.053	0.6338	17 42.4	1.2855	15 38.9	0.8345n	6.831
25	14.1	0.3115	0.045	0.6325	17 45.1	1.2861	15 34.9	0.8296n	6.755
26	14.2	0.3143	0.037	0.6313	17 47.8	1.2867	15 30.9	0.8246n	6.677
27	14.2	0.3170	0.029	0.6300	17 50.6	1.2873	15 26.9	0.8193n	6.597
28	14.3	0.3197	—0.021	0.6288	17 53.4	1.2879	15 22.9	0.8138n	—6.514
29	14.4	0.3225	0.013	0.6276	17 56.2	1.2886	15 18.9	0.8083n	6.431
30	14.5	0.3252	—0.005	0.6264	17 59.1	1.2892	15 15.0	0.8024n	6.345
Mai 1	14.5	0.3279	+0.003	0.6253	18 2.1	1.2898	15 11.1	0.7964n	6.258
2	14.6	0.3307	0.012	0.6243	18 5.1	1.2905	15 7.1	0.7902n	6.169
3	14.7	0.3334	+0.020	0.6233	18 8.1	1.2911	15 3.2	0.7838n	—6.078

Tag	0h Weltzeit										
	f'	g'	G'	Allgemeine Präzession seit 1947.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1947	s in 0.001	in 0.01	h	"	"	in 0.01	23° 26' "	"	in 0.01	in 0.001	
März 23	− 4	+10	16.9	+11.12	−15.51	− 7	46.13	+4.38	+ 9	21	82
24	−10	11	15.4	11.25	15.55	−17	46.13	4.39	+ 8	21	82
25	−14	11	13.9	11.39	15.59	−24	46.13	4.39	+ 5	21	82
26	−16	11	12.2	11.53	15.62	−27	46.13	4.40	+ 1	20	82
27	−15	10	10.5	11.67	15.66	−24	46.13	4.40	− 4	20	82
28	−10	10	8.6	11.80	15.69	−16	46.13	4.40	− 8	20	82
29	− 3	+10	6.7	+11.94	−15.73	− 5	46.12	+4.41	−10	20	82
30	+ 5	10	4.9	12.08	15.76	+ 7	46.12	4.41	−10	20	82
31	+11	10	3.0	12.21	15.80	+18	46.12	4.41	− 7	20	82
April 1	+15	10	1.1	12.35	15.83	+25	46.12	4.41	− 3	20	82
2	+16	11	23.1	12.49	15.87	+26	46.12	4.41	+ 2	20	82
3	+13	11	21.5	12.62	15.90	+22	46.12	4.41	+ 7	20	82
4	+ 9	+11	20.0	+12.76	−15.94	+14	46.12	+4.41	+10	20	82
5	+ 2	11	18.6	12.90	15.97	+ 4	46.12	4.41	+11	20	82
6	− 3	9	17.2	13.04	16.00	− 5	46.11	4.41	+ 9	20	82
7	− 8	8	15.4	13.18	16.03	−13	46.11	4.40	+ 6	20	82
8	−10	7	13.2	13.32	16.06	−16	46.11	4.40	+ 2	20	83
9	−10	7	10.8	13.46	16.08	−16	46.11	4.40	− 2	20	83
10	− 8	+ 8	8.7	+13.60	−16.11	−13	46.11	+4.39	− 6	20	83
11	− 4	9	7.2	13.74	16.14	− 7	46.11	4.39	− 8	20	83
12	0	9	5.9	13.88	16.17	+ 1	46.11	4.38	− 9	20	83
13	+ 4	9	4.8	14.01	16.19	+ 7	46.11	4.38	− 9	19	83
14	+ 8	8	3.5	14.15	16.21	+13	46.10	4.37	− 7	19	83
15	+10	7	1.8	14.29	16.23	+16	46.10	4.37	− 3	19	83
16	+10	+ 6	23.6	+14.43	−16.26	+16	46.10	+4.36	+ 1	19	83
17	+ 7	7	21.0	14.56	16.28	+12	46.10	4.35	+ 5	19	84
18	+ 3	8	18.9	14.70	16.30	+ 5	46.10	4.34	+ 8	19	84
19	− 3	10	17.2	14.84	16.32	− 5	46.10	4.34	+ 9	19	84
20	− 9	11	15.8	14.98	16.33	−15	46.10	4.33	+ 9	19	84
21	−14	11	14.4	15.12	16.35	−23	46.09	4.32	+ 6	19	84
22	−16	+11	12.8	+15.26	−16.36	−27	46.09	+4.31	+ 2	19	84
23	−15	10	11.0	15.39	16.37	−25	46.09	4.30	− 3	19	84
24	−11	10	9.1	15.53	16.38	−19	46.09	4.29	− 7	19	84
25	− 5	10	7.1	15.67	16.39	− 8	46.09	4.28	−10	19	84
26	+ 3	11	5.3	15.81	16.40	+ 5	46.09	4.27	−10	19	84
27	+10	11	3.4	15.94	16.41	+17	46.09	4.26	− 8	19	85
28	+15	+11	1.6	+16.08	−16.42	+25	46.09	+4.25	− 4	19	85
29	+17	11	23.7	16.22	16.42	+28	46.08	4.24	+ 1	19	85
30	+15	11	22.0	16.35	16.43	+25	46.08	4.23	+ 6	19	85
Mai 1	+11	11	20.5	16.49	16.43	+17	46.08	4.22	+ 9	19	85
2	+ 5	11	19.1	16.63	16.43	+ 8	46.08	4.21	+10	18	85
3	− 1	+10	17.6	+16.76	−16.43	− 2	46.08	+4.20	+10	18	85

Tag	0h Weltzeit								
	Sternzeit Greenwich	t	f	log g	G	log h	H	log i	i
1947	h	s	s		h m		h m		"
Mai 3	14.7	0.3334	+0.020	0.6233	18 8.1	1.2911	15 3.2	0.7838n	−6.078
4	14.7	0.3362	0.029	0.6224	18 11.2	1.2917	14 59.3	0.7771n	5.985
5	14.8	0.3389	0.037	0.6217	18 14.3	1.2924	14 55.4	0.7702n	5.891
6	14.9	0.3417	0.046	0.6210	18 17.5	1.2930	14 51.6	0.7631n	5.795
7	14.9	0.3444	0.055	0.6204	18 20.7	1.2936	14 47.7	0.7556n	5.697
8	15.0	0.3471	0.064	0.6198	18 23.9	1.2942	14 43.8	0.7481n	5.599
9	15.1	0.3499	+0.073	0.6193	18 27.1	1.2949	14 40.0	0.7401n	−5.497
10	15.1	0.3526	0.082	0.6190	18 30.4	1.2955	14 36.2	0.7320n	5.395
11	15.2	0.3553	0.091	0.6188	18 33.8	1.2961	14 32.4	0.7235n	5.291
12	15.3	0.3580	0.101	0.6187	18 37.2	1.2967	14 28.6	0.7149n	5.187
13	15.3	0.3607	0.110	0.6188	18 40.6	1.2973	14 24.8	0.7059n	5.080
14	15.4	0.3635	0.119	0.6189	18 44.0	1.2979	14 21.1	0.6965n	4.972
15	15.5	0.3662	+0.129	0.6192	18 47.5	1.2985	14 17.3	0.6869n	−4.863
16	15.5	0.3690	0.139	0.6195	18 51.0	1.2991	14 13.6	0.6769n	4.752
17	15.6	0.3717	0.148	0.6200	18 54.5	1.2997	14 9.8	0.6665n	4.640
18	15.7	0.3744	0.158	0.6207	18 58.0	1.3002	14 6.1	0.6557n	4.526
19	15.7	0.3772	0.168	0.6216	19 1.5	1.3008	14 2.4	0.6446n	4.412
20	15.8	0.3799	0.178	0.6225	19 5.0	1.3013	13 58.7	0.6332n	4.297
21	15.9	0.3826	+0.188	0.6235	19 8.6	1.3019	13 55.0	0.6212n	−4.180
22	15.9	0.3854	0.198	0.6247	19 12.2	1.3024	13 51.3	0.6087n	4.062
23	16.0	0.3881	0.208	0.6260	19 15.7	1.3029	13 47.7	0.5958n	3.943
24	16.1	0.3909	0.218	0.6275	19 19.2	1.3034	13 44.0	0.5825n	3.824
25	16.1	0.3936	0.228	0.6292	19 22.7	1.3039	13 40.4	0.5684n	3.702
26	16.2	0.3964	0.239	0.6311	19 26.2	1.3044	13 36.7	0.5539n	3.580
27	16.2	0.3991	+0.249	0.6331	19 29.7	1.3048	13 33.1	0.5386n	−3.456
28	16.3	0.4018	0.260	0.6352	19 33.2	1.3053	13 29.5	0.5227n	3.332
29	16.4	0.4046	0.270	0.6375	19 36.7	1.3057	13 25.8	0.5062n	3.208
30	16.4	0.4073	0.281	0.6399	19 40.1	1.3061	13 22.2	0.4888n	3.082
31	16.5	0.4100	0.291	0.6424	19 43.5	1.3065	13 18.6	0.4706n	2.955
Juni 1	16.6	0.4128	0.302	0.6449	19 46.9	1.3069	13 15.1	0.4515n	2.828
2	16.6	0.4155	+0.313	0.6476	19 50.2	1.3073	13 11.5	0.4314n	−2.700
3	16.7	0.4183	0.324	0.6506	19 53.5	1.3077	13 7.9	0.4101n	2.571
4	16.8	0.4210	0.334	0.6537	19 56.7	1.3080	13 4.3	0.3876n	2.441
5	16.8	0.4238	0.345	0.6569	19 59.9	1.3083	13 0.8	0.3640n	2.312
6	16.9	0.4265	0.356	0.6602	20 3.0	1.3087	12 57.2	0.3387n	2.181
7	17.0	0.4292	0.367	0.6637	20 6.1	1.3089	12 53.7	0.3115n	2.049
8	17.0	0.4320	+0.378	0.6672	20 9.1	1.3092	12 50.2	0.2826n	−1.917
9	17.1	0.4347	0.389	0.6708	20 12.1	1.3095	12 46.6	0.2516n	1.785
10	17.2	0.4374	0.400	0.6745	20 15.0	1.3097	12 43.0	0.2180n	1.652
11	17.2	0.4402	0.412	0.6782	20 17.9	1.3099	12 39.5	0.1816n	1.519
12	17.3	0.4429	0.423	0.6821	20 20.7	1.3101	12 36.0	0.1414n	1.385
13	17.4	0.4457	+0.434	0.6860	20 23.5	1.3103	12 32.5	0.0973n	−1.251

Tag	0h Weltzeit										
	f'	g'	G'	Allgemeine Präzession seit 1947.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1947	s in 0.001	" in 0.01	h	"	"	" in 0.01	23° 26' "	"	" in 0.01	in 0.001	
Mai 3	− 1	+10	17.6	+16.76	−16.43	− 2	46.08	+4.20	+10	18	85
4	− 6	8	16.0	16.90	16.42	−10	46.08	4.19	+ 7	18	85
5	− 9	7	13.9	17.04	16.42	−15	46.08	4.18	+ 3	18	86
6	−10	7	11.5	17.18	16.41	−16	46.08	4.17	− 1	18	86
7	− 9	7	9.4	17.31	16.40	−14	46.07	4.16	− 5	18	86
8	− 5	8	7.7	17.45	16.39	− 9	46.07	4.14	− 7	18	86
9	− 1	+ 9	6.3	+17.59	−16.39	− 2	46.07	+4.13	− 9	18	86
10	+ 3	10	5.2	17.73	16.38	+ 5	46.07	4.12	− 9	18	86
11	+ 6	9	4.0	17.87	16.37	+11	46.07	4.11	− 7	18	86
12	+ 9	7	2.4	18.01	16.35	+15	46.07	4.10	− 4	18	86
13	+10	6	0.4	18.14	16.34	+16	46.07	4.09	− 1	18	87
14	+ 8	6	21.7	18.28	16.32	+13	46.07	4.08	+ 4	18	87
15	+ 4	+ 8	19.3	+18.42	−16.30	+ 7	46.06	+4.07	+ 7	18	87
16	− 2	9	17.6	18.56	16.28	− 3	46.06	4.06	+ 9	18	87
17	− 8	10	16.1	18.69	16.26	−13	46.06	4.05	+ 9	18	87
18	−13	12	14.8	18.83	16.24	−22	46.06	4.04	+ 8	18	87
19	−17	12	13.2	18.97	16.22	−28	46.06	4.03	+ 4	18	87
20	−17	11	11.6	19.10	16.19	−28	46.06	4.03	− 1	18	87
21	−14	+11	9.8	+19.24	−16.17	−23	46.06	+4.02	− 6	18	87
22	− 7	11	7.8	19.38	16.14	−12	46.06	4.01	− 9	18	88
23	+ 1	11	5.9	19.51	16.11	+ 1	46.05	4.00	−11	18	88
24	+ 9	11	3.9	19.65	16.08	+14	46.05	3.99	− 9	18	88
25	+15	11	2.1	19.79	16.05	+24	46.05	3.98	− 6	19	88
26	+18	12	0.2	19.93	16.02	+29	46.05	3.98	− 1	19	88
27	+17	+12	22.6	+20.06	−15.99	+28	46.05	+3.97	+ 4	19	88
28	+13	12	21.1	20.20	15.96	+21	46.05	3.97	+ 8	19	88
29	+ 7	11	19.6	20.34	15.92	+12	46.05	3.96	+10	19	88
30	+ 1	10	18.2	20.48	15.88	+ 2	46.05	3.95	+10	19	88
31	− 5	9	16.6	20.62	15.84	− 8	46.04	3.95	+ 8	19	88
Juni 1	− 8	7	14.6	20.76	15.81	−14	46.04	3.94	+ 4	19	88
2	− 9	+ 6	12.3	+20.89	−15.77	−15	46.04	+3.94	0	19	89
3	− 9	7	9.8	21.03	15.73	−14	46.04	3.94	− 4	19	89
4	− 6	8	8.0	21.17	15.69	−10	46.04	3.93	− 7	20	89
5	− 2	9	6.6	21.31	15.65	− 3	46.04	3.93	− 8	20	89
6	+ 2	9	5.4	21.44	15.61	+ 4	46.04	3.93	− 9	20	89
7	+ 6	9	4.3	21.58	15.57	+ 9	46.03	3.93	− 8	20	89
8	+ 8	+ 8	3.0	+21.72	−15.53	+14	46.03	+3.93	− 5	20	89
9	+10	7	1.1	21.86	15.48	+16	46.03	3.93	− 2	20	89
10	+ 9	6	22.7	22.00	15.44	+14	46.03	3.93	+ 2	21	89
11	+ 5	7	20.1	22.14	15.39	+ 9	46.03	3.93	+ 6	21	89
12	0	9	18.0	22.27	15.35	0	46.03	3.93	+ 9	21	89
13	− 6	+11	16.5	+22.41	−15.30	−10	46.03	+3.93	+10	21	89

Reduktionsgrößen 1947

Tag	0h Weltzeit								
	Sternzeit Greenwich	t	f	log g	G	log h	H	log i	i
1947	h	a	s		h m		h m		"
Juni 13	17.4	0.4457	+0.434	0.6860	20 23.5	1.3103	12 32.5	0.0973n	−1.251
14	17.4	0.4484	0.445	0.6901	20 26.2	1.3105	12 28.9	0.0477n	1.116
15	17.5	0.4512	0.456	0.6942	20 28.9	1.3106	12 25.4	9.9921n	0.982
16	17.6	0.4539	0.467	0.6984	20 31.5	1.3108	12 21.9	9.9279n	0.847
17	17.6	0.4566	0.479	0.7026	20 34.0	1.3109	12 18.4	9.8525n	0.712
18	17.7	0.4594	0.490	0.7068	20 36.4	1.3110	12 14.9	9.7612n	0.577
19	17.8	0.4621	+0.501	0.7110	20 38.8	1.3110	12 11.4	9.6454n	−0.442
20	17.8	0.4648	0.512	0.7154	20 41.1	1.3111	12 7.9	9.4857n	0.306
21	17.9	0.4676	0.524	0.7198	20 43.4	1.3111	12 4.4	9.2330n	0.171
22	18.0	0.4703	0.535	0.7242	20 45.6	1.3111	12 0.9	8.5441n	−0.035
23	18.0	0.4731	0.547	0.7287	20 47.8	1.3111	11 57.4	9.0043	+0.101
24	18.1	0.4758	0.558	0.7332	20 49.9	1.3111	11 53.9	9.3729	0.236
25	18.2	0.4786	+0.569	0.7377	20 51.9	1.3111	11 50.4	9.5705	+0.372
26	18.2	0.4813	0.580	0.7422	20 53.8	1.3110	11 46.9	9.7050	0.507
27	18.3	0.4840	0.592	0.7467	20 55.7	1.3109	11 43.4	9.8082	0.643
28	18.3	0.4868	0.603	0.7513	20 57.6	1.3108	11 39.9	9.8910	0.778
29	18.4	0.4895	0.614	0.7559	20 59.4	1.3107	11 36.4	9.9600	0.912
30	18.5	0.4922	0.626	0.7604	21 1.1	1.3106	11 32.9	0.0199	1.047
Juli 1	18.5	0.4949	+0.637	0.7650	21 2.8	1.3104	11 29.4	0.0726	+1.182
2	18.6	0.4976	0.648	0.7696	21 4.4	1.3102	11 25.8	0.1193	1.316
3	18.7	0.5004	0.659	0.7742	21 6.0	1.3100	11 22.3	0.1611	1.449
4	18.7	0.5031	0.670	0.7787	21 7.5	1.3098	11 18.8	0.1992	1.582
5	18.8	0.5059	0.681	0.7832	21 9.0	1.3096	11 15.3	0.2343	1.715
6	18.9	0.5086	0.692	0.7877	21 10.4	1.3093	11 11.8	0.2665	1.847
7	18.9	0.5113	+0.703	0.7922	21 11.8	1.3091	11 8.2	0.2964	+1.979
8	19.0	0.5141	0.714	0.7966	21 13.1	1.3088	11 4.7	0.3243	2.110
9	19.1	0.5168	0.725	0.8010	21 14.4	1.3085	11 1.2	0.3502	2.240
10	19.1	0.5195	0.736	0.8055	21 15.6	1.3082	10 57.6	0.3747	2.370
11	19.2	0.5223	0.747	0.8099	21 16.8	1.3079	10 54.1	0.3979	2.500
12	19.3	0.5250	0.758	0.8143	21 17.9	1.3075	10 50.5	0.4198	2.629
13	19.3	0.5278	+0.768	0.8186	21 19.0	1.3071	10 47.0	0.4403	+2.756
14	19.4	0.5305	0.779	0.8229	21 20.0	1.3068	10 43.4	0.4598	2.883
15	19.5	0.5333	0.790	0.8272	21 21.0	1.3064	10 39.8	0.4786	3.010
16	19.5	0.5360	0.801	0.8314	21 22.0	1.3060	10 36.2	0.4962	3.135
17	19.6	0.5387	0.811	0.8356	21 23.0	1.3055	10 32.6	0.5132	3.260
18	19.7	0.5415	0.822	0.8398	21 23.9	1.3051	10 29.0	0.5294	3.384
19	19.7	0.5442	+0.832	0.8439	21 24.8	1.3046	10 25.4	0.5449	+3.507
20	19.8	0.5470	0.842	0.8480	21 25.6	1.3042	10 21.8	0.5598	3.629
21	19.9	0.5498	0.852	0.8520	21 26.4	1.3037	10 18.2	0.5740	3.750
22	19.9	0.5525	0.862	0.8560	21 27.2	1.3032	10 14.6	0.5877	3.870
23	20.0	0.5553	0.873	0.8600	21 27.9	1.3027	10 11.0	0.6009	3.989
24	20.1	0.5580	+0.883	0.8640	21 28.6	1.3022	10 7.3	0.6135	+4.107

Tag	0h Weltzeit										
	f'	g'	G'	Allgemeine Präzession seit 1947.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1947	s in 0.001	in 0.01	h	"	"	in 0.01	23° 26' "	"	in 0.01	in 0.001	
Juni 13	−6	+11	16.5	+22.41	−15.30	−10	46.03	+3.93	+10	21	89
14	−12	12	15.1	22.55	15.26	−20	46.03	3.94	+9	21	89
15	−17	13	13.7	22.69	15.21	−28	46.02	3.94	+5	22	89
16	−19	12	12.2	22.82	15.17	−31	46.02	3.94	+1	22	89
17	−17	12	10.6	22.96	15.12	−28	46.02	3.95	−4	22	89
18	−11	11	8.7	23.10	15.08	−19	46.02	3.95	−9	22	89
19	−3	+11	6.8	+23.23	−15.03	−6	46.02	+3.96	−11	22	89
20	+5	11	4.8	23.37	14.98	+9	46.02	3.96	−11	23	89
21	+13	11	2.8	23.51	14.93	+21	46.02	3.97	−8	23	89
22	+17	11	0.9	23.64	14.88	+28	46.02	3.98	−3	23	89
23	+18	12	23.1	23.78	14.84	+29	46.01	3.98	+3	23	89
24	+15	12	21.6	23.92	14.79	+25	46.01	3.99	+7	24	89
25	+10	+12	20.2	+24.06	−14.74	+16	46.01	+4.00	+10	24	89
26	+4	11	18.8	24.19	14.69	+6	46.01	4.01	+11	24	89
27	−2	9	17.4	24.33	14.65	−4	46.01	4.02	+9	24	89
28	−7	7	15.5	24.47	14.60	−11	46.01	4.03	+6	25	89
29	−9	6	13.0	24.61	14.55	−14	46.01	4.04	+2	25	89
30	−8	6	10.2	24.75	14.50	−13	46.01	4.05	−3	25	89
Juli 1	−6	+7	8.2	+24.89	−14.46	−10	46.00	+4.07	−6	25	89
2	−2	8	6.7	25.02	14.41	−4	46.00	4.08	−8	26	89
3	+2	9	5.5	25.16	14.37	+3	46.00	4.09	−9	26	89
4	+5	9	4.4	25.30	14.33	+9	46.00	4.11	−8	26	89
5	+8	8	3.2	25.44	14.29	+14	46.00	4.12	−6	27	89
6	+10	7	1.6	25.57	14.24	+16	46.00	4.14	−3	27	89
7	+10	+6	23.5	+25.71	−14.20	+16	46.00	+4.15	+1	27	89
8	+7	7	20.9	25.85	14.16	+11	46.00	4.17	+5	27	89
9	+2	8	18.6	25.98	14.12	+3	45.99	4.18	+8	28	89
10	−4	10	17.0	26.12	14.08	−7	45.99	4.20	+10	28	89
11	−10	11	15.5	26.26	14.04	−17	45.99	4.22	+9	28	89
12	−16	12	14.2	26.39	14.00	−26	45.99	4.24	+7	28	89
13	−19	+13	12.7	+26.53	−13.96	−31	45.99	+4.26	+2	29	89
14	−19	13	11.2	26.67	13.92	−31	45.99	4.27	−3	29	89
15	−15	12	9.6	26.81	13.89	−24	45.99	4.29	−7	29	89
16	−8	11	7.8	26.94	13.85	−13	45.98	4.31	−10	30	88
17	+1	11	5.8	27.08	13.82	+1	45.98	4.33	−11	30	88
18	+9	10	3.8	27.22	13.78	+15	45.98	4.35	−9	30	88
19	+15	+11	1.7	+27.36	−13.75	+25	45.98	+4.38	−5	31	88
20	+17	11	23.7	27.50	13.72	+29	45.98	4.40	+1	31	88
21	+16	12	22.1	27.64	13.69	+27	45.98	4.42	+6	31	88
22	+12	12	20.6	27.77	13.66	+20	45.98	4.44	+10	32	88
23	+6	12	19.3	27.91	13.63	+10	45.98	4.46	+11	32	88
24	0	+10	17.9	+28.05	−13.60	−1	45.97	+4.49	+10	32	88

Tag	0h Weltzeit								
	Sternzeit Greenwich	t	f	log g	G	log h	H	log i	i
1947	h	a	s		h m		h m		″
Juli 24	20.1	0.5580	+0.883	0.8640	21 28.6	1.3022	10 7.3	0.6135	+4.107
25	20.1	0.5608	0.893	0.8679	21 29.3	1.3016	10 3.7	0.6256	4.223
26	20.2	0.5635	0.903	0.8717	21 30.0	1.3011	10 0.0	0.6373	4.338
27	20.3	0.5662	0.913	0.8754	21 30.6	1.3006	9 56.3	0.6487	4.453
28	20.3	0.5690	0.923	0.8792	21 31.2	1.3000	9 52.6	0.6595	4.566
29	20.4	0.5717	0.932	0.8829	21 31.7	1.2994	9 48.9	0.6700	4.677
30	20.5	0.5744	+0.942	0.8866	21 32.3	1.2989	9 45.2	0.6802	+4.788
31	20.5	0.5772	0.951	0.8902	21 32.8	1.2983	9 41.5	0.6900	4.898
Aug. 1	20.6	0.5799	0.961	0.8938	21 33.3	1.2977	9 37.8	0.6995	5.006
2	20.6	0.5827	0.970	0.8973	21 33.8	1.2971	9 34.0	0.7086	5.112
3	20.7	0.5854	0.979	0.9008	21 34.3	1.2965	9 30.3	0.7174	5.217
4	20.8	0.5882	0.988	0.9042	21 34.7	1.2959	9 26.5	0.7261	5.322
5	20.8	0.5909	+0.998	0.9076	21 35.2	1.2953	9 22.7	0.7343	+5.424
6	20.9	0.5936	1.007	0.9109	21 35.6	1.2947	9 19.0	0.7423	5.524
7	21.0	0.5964	1.016	0.9142	21 36.0	1.2941	9 15.2	0.7500	5.623
8	21.0	0.5991	1.025	0.9174	21 36.3	1.2935	9 11.4	0.7575	5.721
9	21.1	0.6018	1.034	0.9206	21 36.7	1.2928	9 7.5	0.7647	5.817
10	21.2	0.6046	1.042	0.9237	21 37.0	1.2922	9 3.7	0.7717	5.912
11	21.2	0.6073	+1.051	0.9269	21 37.4	1.2916	8 59.9	0.7786	+6.006
12	21.3	0.6101	1.059	0.9300	21 37.7	1.2910	8 56.0	0.7851	6.097
13	21.4	0.6128	1.068	0.9330	21 38.0	1.2903	8 52.1	0.7914	6.186
14	21.4	0.6156	1.076	0.9360	21 38.3	1.2897	8 48.2	0.7975	6.274
15	21.5	0.6183	1.085	0.9389	21 38.6	1.2891	8 44.3	0.8035	6.360
16	21.6	0.6210	1.093	0.9417	21 38.9	1.2885	8 40.4	0.8092	6.444
17	21.6	0.6238	+1.101	0.9446	21 39.2	1.2878	8 36.5	0.8147	+6.527
18	21.7	0.6265	1.109	0.9474	21 39.4	1.2872	8 32.6	0.8201	6.608
19	21.8	0.6292	1.117	0.9502	21 39.7	1.2866	8 28.6	0.8252	6.687
20	21.8	0.6319	1.125	0.9529	21 40.0	1.2860	8 24.7	0.8302	6.764
21	21.9	0.6346	1.133	0.9556	21 40.3	1.2854	8 20.7	0.8350	6.839
22	22.0	0.6374	1.140	0.9582	21 40.5	1.2848	8 16.7	0.8397	6.913
23	22.0	0.6401	+1.148	0.9608	21 40.7	1.2843	8 12.7	0.8441	+6.984
24	22.1	0.6429	1.155	0.9634	21 40.9	1.2837	8 8.7	0.8484	7.053
25	22.2	0.6456	1.163	0.9659	21 41.2	1.2831	8 4.7	0.8526	7.122
26	22.2	0.6483	1.171	0.9683	21 41.4	1.2826	8 0.6	0.8565	7.187
27	22.3	0.6511	1.178	0.9707	21 41.7	1.2820	7 56.6	0.8604	7.251
28	22.4	0.6538	1.185	0.9731	21 41.9	1.2815	7 52.5	0.8640	7.312
29	22.4	0.6565	+1.193	0.9755	21 42.1	1.2810	7 48.5	0.8675	+7.371
30	22.5	0.6593	1.200	0.9778	21 42.3	1.2805	7 44.4	0.8709	7.429
31	22.6	0.6620	1.207	0.9801	21 42.6	1.2800	7 40.3	0.8741	7.484
Sept. 1	22.6	0.6648	1.214	0.9823	21 42.8	1.2795	7 36.2	0.8772	7.537
2	22.7	0.6675	1.221	0.9845	21 43.0	1.2790	7 32.1	0.8801	7.588
3	22.8	0.6703	+1.228	0.9867	21 43.2	1.2786	7 28.0	0.8829	+7.637

Tag	0h Weltzeit										
	f'	g'	G'	Allgemeine Präzession seit 1947.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1947	s in 0.001	" in 0.01	h	"	"	" in 0.01	23° 26' "	"	" in 0.01	in 0.001	
Juli 24	0	+10	17.9	+28.05	−13.60	− 1	45.97	+4.49	+10	32	88
25	− 5	8	16.2	28.19	13.58	− 9	45.97	4.51	+ 7	32	87
26	− 8	6	13.9	28.32	13.55	−13	45.97	4.53	+ 3	33	87
27	− 8	6	10.9	28.46	13.53	−13	45.97	4.56	− 2	33	87
28	− 6	7	8.5	28.60	13.51	−10	45.97	4.58	− 5	33	87
29	− 3	8	6.9	28.74	13.49	− 5	45.97	4.60	− 8	33	87
30	+ 1	+ 9	5.6	+28.88	−13.47	+ 2	45.97	+4.63	− 9	34	87
31	+ 6	9	4.5	29.02	13.45	+ 9	45.97	4.65	− 9	34	87
Aug. 1	+ 8	9	3.4	29.15	13.43	+14	45.96	4.68	− 7	34	87
2	+10	8	1.9	29.29	13.41	+17	45.96	4.70	− 4	35	87
3	+11	7	0.0	29.43	13.40	+17	45.96	4.73	0	35	86
4	+ 8	7	21.7	29.57	13.39	+14	45.96	4.75	+ 4	35	86
5	+ 4	+ 8	19.5	+29.70	−13.38	+ 7	45.96	+4.78	+ 7	35	86
6	− 1	9	17.6	29.84	13.37	− 2	45.96	4.80	+ 9	36	86
7	− 8	11	16.1	29.98	13.36	−13	45.96	4.83	+ 9	36	86
8	−14	12	14.7	30.11	13.35	−23	45.96	4.85	+ 8	36	86
9	−18	12	13.2	30.25	13.35	−29	45.95	4.88	+ 4	36	86
10	−19	13	11.7	30.39	13.34	−32	45.95	4.90	− 1	37	86
11	−17	+12	10.2	+30.52	−13.34	−28	45.95	+4.93	− 6	37	85
12	−11	12	8.5	30.66	13.33	−18	45.95	4.95	− 9	37	85
13	− 3	11	6.7	30.80	13.33	− 5	45.95	4.98	−11	37	85
14	+ 5	11	4.8	30.94	13.33	+ 8	45.95	5.00	−10	38	85
15	+12	10	2.6	31.07	13.33	+20	45.95	5.03	− 6	38	85
16	+16	10	0.5	31.21	13.33	+26	45.94	5.05	− 1	38	85
17	+16	+11	22.6	+31.35	−13.34	+26	45.94	+5.08	+ 4	39	85
18	+13	12	21.0	31.49	13.34	+21	45.94	5.10	+ 8	39	85
19	+ 7	12	19.6	31.63	13.35	+12	45.94	5.12	+11	39	84
20	+ 1	11	18.2	31.77	13.36	+ 2	45.94	5.15	+11	39	84
21	− 4	9	16.7	31.90	13.37	− 7	45.94	5.17	+ 8	39	84
22	− 8	7	14.7	32.04	13.38	−13	45.94	5.20	+ 4	40	84
23	− 9	+ 6	11.9	+32.18	−13.39	−14	45.94	+5.22	0	40	84
24	− 7	6	9.1	32.32	13.41	−12	45.93	5.24	− 4	40	84
25	− 4	8	7.4	32.45	13.42	− 7	45.93	5.26	− 8	40	84
26	+ 1	9	5.8	32.59	13.44	+ 1	45.93	5.29	− 9	41	84
27	+ 5	10	4.7	32.73	13.45	+ 8	45.93	5.31	− 9	41	84
28	+ 8	9	3.5	32.86	13.47	+14	45.93	5.33	− 7	41	83
29	+11	+ 8	2.2	+33.00	−13.49	+18	45.93	+5.35	− 5	41	83
30	+11	7	0.5	33.14	13.51	+18	45.93	5.37	− 1	41	83
31	+10	7	22.4	33.27	13.53	+16	45.93	5.39	+ 3	42	83
Sept. 1	+ 6	7	20.2	33.41	13.55	+10	45.92	5.41	+ 6	42	83
2	+ 1	9	18.3	33.55	13.57	+ 2	45.92	5.43	+ 9	42	83
3	− 5	+10	16.7	+33.69	−13.60	− 9	45.92	+5.45	+ 9	42	83

Tag	0h Weltzeit								
	Sternzeit Greenwich	t	f	log g	G	log h	H	log i	i
1947	h	a	s		h m		h m		″
Sept. 3	22.8	0.6703	+1.228	0.9867	21 43.2	1.2786	7 28.0	0.8829	+7.637
4	22.8	0.6730	1.235	0.9888	21 43.4	1.2781	7 23.9	0.8856	7.684
5	22.9	0.6757	1.242	0.9909	21 43.7	1.2777	7 19.7	0.8881	7.728
6	22.9	0.6785	1.249	0.9930	21 43.9	1.2773	7 15.6	0.8905	7.771
7	23.0	0.6812	1.255	0.9950	21 44.2	1.2770	7 11.4	0.8927	7.811
8	23.1	0.6839	1.262	0.9970	21 44.4	1.2766	7 7.2	0.8948	7.849
9	23.1	0.6867	+1.268	0.9989	21 44.7	1.2763	7 3.0	0.8968	+7.885
10	23.2	0.6894	1.275	1.0008	21 44.9	1.2759	6 58.8	0.8986	7.918
11	23.3	0.6922	1.281	1.0027	21 45.2	1.2756	6 54.7	0.9004	7.950
12	23.3	0.6949	1.288	1.0046	21 45.4	1.2754	6 50.4	0.9019	7.978
13	23.4	0.6977	1.294	1.0064	21 45.7	1.2751	6 46.2	0.9034	8.005
14	23.5	0.7004	1.301	1.0082	21 46.0	1.2749	6 42.0	0.9047	8.029
15	23.5	0.7031	+1.307	1.0100	21 46.3	1.2746	6 37.8	0.9058	+8.051
16	23.6	0.7059	1.314	1.0118	21 46.6	1.2744	6 33.6	0.9069	8.071
17	23.7	0.7086	1.320	1.0135	21 46.9	1.2743	6 29.3	0.9079	8.089
18	23.7	0.7113	1.327	1.0152	21 47.2	1.2741	6 25.1	0.9086	8.103
19	23.8	0.7141	1.333	1.0169	21 47.5	1.2740	6 20.8	0.9093	8.116
20	23.9	0.7168	1.339	1.0186	21 47.8	1.2739	6 16.6	0.9099	8.127
21	23.9	0.7196	+1.345	1.0202	21 48.1	1.2738	6 12.3	0.9104	+8.135
22	0.0	0.7223	1.352	1.0218	21 48.4	1.2737	6 8.0	0.9106	8.140
23	0.1	0.7251	1.358	1.0234	21 48.8	1.2737	6 3.8	0.9108	8.143
24	0.1	0.7278	1.365	1.0250	21 49.1	1.2737	5 59.5	0.9108	8.144
25	0.2	0.7305	1.371	1.0265	21 49.5	1.2737	5 55.2	0.9108	8.143
26	0.3	0.7333	1.377	1.0281	21 49.9	1.2737	5 51.0	0.9106	8.139
27	0.3	0.7360	+1.383	1.0296	21 50.3	1.2738	5 46.7	0.9103	+8.133
28	0.4	0.7387	1.390	1.0311	21 50.7	1.2739	5 42.4	0.9098	8.125
29	0.5	0.7415	1.396	1.0326	21 51.1	1.2740	5 38.1	0.9092	8.113
30	0.5	0.7442	1.402	1.0341	21 51.5	1.2742	5 33.9	0.9085	8.100
Okt. 1	0.6	0.7470	1.409	1.0356	21 51.9	1.2743	5 29.6	0.9076	8.084
2	0.7	0.7497	1.415	1.0370	21 52.3	1.2745	5 25.3	0.9067	8.067
3	0.7	0.7525	+1.421	1.0384	21 52.8	1.2747	5 21.1	0.9055	+8.045
4	0.8	0.7552	1.427	1.0399	21 53.2	1.2749	5 16.8	0.9043	8.023
5	0.9	0.7579	1.434	1.0413	21 53.7	1.2751	5 12.5	0.9029	7.997
6	0.9	0.7607	1.441	1.0427	21 54.2	1.2754	5 8.2	0.9015	7.970
7	1.0	0.7634	1.448	1.0441	21 54.7	1.2757	5 4.0	0.8998	7.939
8	1.1	0.7661	1.454	1.0455	21 55.2	1.2761	4 59.7	0.8980	7.907
9	1.1	0.7688	+1.461	1.0469	21 55.7	1.2764	4 55.5	0.8961	+7.872
10	1.2	0.7715	1.467	1.0483	21 56.2	1.2767	4 51.2	0.8940	7.835
11	1.2	0.7743	1.474	1.0497	21 56.7	1.2771	4 47.0	0.8919	7.796
12	1.3	0.7770	1.481	1.0511	21 57.2	1.2775	4 42.7	0.8896	7.755
13	1.4	0.7798	1.488	1.0524	21 57.8	1.2779	4 38.5	0.8871	7.710
14	1.4	0.7825	+1.495	1.0538	21 58.3	1.2784	4 34.3	0.8843	+7.662

Tag	f'	g'	G'	Allgemeine Präzession seit 1947.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
	0h Weltzeit										
1947	s in 0.001	in 0.01	"	"	"	in 0.01	23° 26' "	"	in 0.01	in 0.001	
Sept. 3	− 5	+10	16.7	+33.69	−13.60	− 9	45.92	+5.45	+ 9	42	83
4	−11	11	15.1	33.82	13.62	−19	45.92	5.47	+ 8	43	83
5	−16	12	13.7	33.96	13.65	−26	45.92	5.49	+ 5	43	83
6	−18	12	12.2	34.10	13.68	−30	45.92	5.51	+ 1	43	83
7	−17	12	10.6	34.24	13.71	−28	45.92	5.52	− 4	43	83
8	−13	12	9.0	34.38	13.74	−21	45.92	5.54	− 8	43	83
9	− 6	+11	7.3	+34.52	−13.77	− 9	45.91	+5.55	−11	44	83
10	+ 2	11	5.5	34.65	13.80	+ 4	45.91	5.57	−10	44	83
11	+ 9	10	3.5	34.79	13.83	+15	45.91	5.59	− 8	44	83
12	+14	10	1.3	34.93	13.86	+23	45.91	5.60	− 3	44	82
13	+15	10	23.2	35.07	13.89	+25	45.91	5.61	+ 2	44	82
14	+13	11	21.4	35.20	13.92	+21	45.91	5.63	+ 7	45	82
15	+ 8	+11	19.9	+35.34	−13.95	+13	45.91	+5.64	+10	45	82
16	+ 2	11	18.5	35.48	13.98	+ 4	45.91	5.65	+11	45	82
17	− 4	9	17.1	35.62	14.02	− 6	45.90	5.66	+ 9	45	82
18	− 8	8	15.3	35.76	14.05	−13	45.90	5.67	+ 6	45	82
19	− 9	6	12.9	35.90	14.09	−15	45.90	5.68	+ 1	45	82
20	− 9	7	10.0	36.03	14.12	−14	45.90	5.69	− 3	46	82
21	− 5	+ 8	7.8	+36.17	−14.16	− 9	45.90	+5.70	− 7	46	82
22	− 1	9	6.3	36.31	14.19	− 1	45.90	5.71	− 9	46	82
23	+ 4	10	5.0	36.45	14.23	+ 6	45.90	5.72	− 9	46	82
24	+ 8	9	3.8	36.58	14.26	+13	45.89	5.72	− 8	46	82
25	+11	9	2.6	36.72	14.30	+18	45.89	5.73	− 6	46	82
26	+12	8	1.0	36.86	14.33	+19	45.89	5.74	− 2	47	82
27	+11	+ 7	23.0	+36.99	−14.37	+18	45.89	+5.74	+ 2	47	82
28	+ 8	7	20.9	37.13	14.40	+13	45.89	5.75	+ 5	47	82
29	+ 3	8	18.9	37.27	14.43	+ 5	45.89	5.75	+ 8	47	82
30	− 3	10	17.2	37.40	14.46	− 5	45.89	5.75	+ 9	47	82
Okt. 1	− 9	11	15.7	37.54	14.50	−15	45.89	5.76	+ 9	47	82
2	−14	11	14.2	37.68	14.53	−23	45.88	5.76	+ 6	47	82
3	−17	+11	12.6	+37.82	−14.57	−28	45.88	+5.76	+ 2	48	82
4	−17	11	11.0	37.95	14.60	−27	45.88	5.76	− 3	48	82
5	−13	11	9.3	38.09	14.63	−22	45.88	5.76	− 7	48	82
6	− 7	11	7.7	38.23	14.66	−12	45.88	5.76	−10	48	82
7	+ 1	11	5.9	38.37	14.69	+ 1	45.88	5.76	−11	48	82
8	+ 8	10	4.0	38.51	14.72	+13	45.88	5.75	− 9	49	82
9	+13	+10	1.9	+38.65	−14.75	+21	45.88	+5.75	− 5	49	82
10	+15	10	23.8	38.78	14.78	+25	45.87	5.75	0	49	83
11	+14	11	22.0	38.92	14.80	+23	45.87	5.75	+ 5	49	83
12	+10	11	20.3	39.06	14.83	+16	45.87	5.74	+ 9	49	83
13	+ 4	11	18.8	39.20	14.86	+ 6	45.87	5.74	+11	49	83
14	− 2	+10	17.4	+39.33	−14.88	− 4	45.87	+5.73	+10	49	83

Reductionsgrößen 1947

Tag	0ʰ Weltzeit								
	Sternzeit Greenwich	t	f	log g	G	log h	H	log i	i
1947	h	a	s		h m		h m		″
Okt. 14	1.4	0.7825	+1.495	1.0538	21 58.3	1.2784	4 34.3	0.8843	+7.662
15	1.5	0.7852	1.502	1.0552	21 58.9	1.2788	4 30.0	0.8816	7.614
16	1.6	0.7880	1.509	1.0566	21 59.5	1.2792	4 25.8	0.8786	7.562
17	1.6	0.7907	1.516	1.0581	22 0.1	1.2797	4 21.6	0.8756	7.509
18	1.7	0.7934	1.523	1.0595	22 0.6	1.2802	4 17.4	0.8723	7.453
19	1.8	0.7962	1.530	1.0609	22 1.2	1.2808	4 13.2	0.8689	7.395
20	1.8	0.7989	+1.537	1.0623	22 1.8	1.2813	4 9.0	0.8654	+7.335
21	1.9	0.8017	1.545	1.0637	22 2.5	1.2818	4 4.8	0.8617	7.272
22	2.0	0.8044	1.552	1.0651	22 3.1	1.2824	4 0.7	0.8578	7.208
23	2.1	0.8072	1.560	1.0665	22 3.7	1.2830	3 56.5	0.8538	7.141
24	2.1	0.8099	1.568	1.0680	22 4.3	1.2835	3 52.4	0.8495	7.072
25	2.2	0.8126	1.576	1.0695	22 5.0	1.2841	3 48.2	0.8451	7.000
26	2.2	0.8154	+1.583	1.0709	22 5.6	1.2847	3 44.1	0.8405	+6.927
27	2.3	0.8181	1.591	1.0724	22 6.3	1.2853	3 39.9	0.8358	6.851
28	2.4	0.8208	1.599	1.0739	22 6.9	1.2860	3 35.8	0.8308	6.773
29	2.4	0.8236	1.607	1.0754	22 7.6	1.2866	3 31.7	0.8257	6.694
30	2.5	0.8263	1.615	1.0769	22 8.3	1.2872	3 27.6	0.8203	6.612
31	2.6	0.8291	1.623	1.0784	22 9.0	1.2878	3 23.5	0.8148	6.528
Nov. 1	2.6	0.8318	+1.631	1.0800	22 9.7	1.2885	3 19.4	0.8090	+6.441
2	2.7	0.8346	1.640	1.0816	22 10.4	1.2891	3 15.4	0.8030	6.353
3	2.8	0.8373	1.648	1.0831	22 11.1	1.2898	3 11.3	0.7968	6.264
4	2.8	0.8400	1.657	1.0847	22 11.8	1.2904	3 7.3	0.7904	6.171
5	2.9	0.8428	1.666	1.0863	22 12.4	1.2911	3 3.2	0.7838	6.078
6	3.0	0.8455	1.675	1.0880	22 13.1	1.2917	2 59.2	0.7768	5.982
7	3.1	0.8482	+1.684	1.0896	22 13.8	1.2924	2 55.2	0.7697	+5.884
8	3.1	0.8510	1.693	1.0913	22 14.5	1.2930	2 51.2	0.7623	5.785
9	3.2	0.8537	1.702	1.0929	22 15.2	1.2937	2 47.2	0.7546	5.683
10	3.2	0.8565	1.711	1.0946	22 15.9	1.2943	2 43.2	0.7466	5.579
11	3.3	0.8592	1.720	1.0963	22 16.6	1.2950	2 39.2	0.7384	5.475
12	3.3	0.8620	1.730	1.0981	22 17.3	1.2956	2 35.2	0.7298	5.368
13	3.4	0.8647	+1.739	1.0998	22 18.0	1.2963	2 31.3	0.7210	+5.260
14	3.5	0.8674	1.749	1.1016	22 18.7	1.2969	2 27.3	0.7118	5.150
15	3.5	0.8702	1.759	1.1033	22 19.4	1.2975	2 23.4	0.7023	5.038
16	3.6	0.8729	1.769	1.1051	22 20.1	1.2982	2 19.4	0.6923	4.924
17	3.7	0.8756	1.778	1.1069	22 20.8	1.2988	2 15.5	0.6821	4.810
18	3.7	0.8784	1.788	1.1088	22 21.5	1.2994	2 11.6	0.6715	4.694
19	3.8	0.8811	+1.798	1.1106	22 22.2	1.3000	2 7.7	0.6604	+4.575
20	3.9	0.8838	1.809	1.1125	22 22.8	1.3006	2 3.8	0.6489	4.456
21	3.9	0.8865	1.819	1.1144	22 23.5	1.3012	1 59.9	0.6371	4.336
22	4.0	0.8893	1.829	1.1163	22 24.1	1.3017	1 56.0	0.6246	4.213
23	4.1	0.8920	1.839	1.1182	22 24.8	1.3023	1 52.2	0.6116	4.089
24	4.1	0.8947	+1.850	1.1202	22 25.4	1.3028	1 48.3	0.5982	+3.965

Tag	f'	g'	G'	Allgemeine Präzession seit 1947.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
	0h Weltzeit										
1947	s in 0.001	" in 0.01	h	"	"	" in 0.01	23° 26' "	"	" in 0.01	in 0.001	
Okt. 14	− 2	+10	17.4	+39.33	−14.88	− 4	45.87	+5.73	+10	49	83
15	− 7	8	15.8	39.47	14.90	−11	45.87	5.73	+ 7	50	83
16	−10	7	13.6	39.61	14.93	−16	45.87	5.72	+ 3	50	83
17	−10	6	11.0	39.74	14.95	−16	45.87	5.71	− 2	50	83
18	− 7	7	8.6	39.88	14.97	−12	45.86	5.71	− 6	50	83
19	− 3	8	6.9	40.02	14.99	− 5	45.86	5.70	− 8	50	83
20	+ 2	+ 9	5.5	+40.15	−15.01	+ 3	45.86	+5.69	− 9	51	83
21	+ 6	10	4.3	40.29	15.02	+10	45.86	5.68	− 9	51	83
22	+10	9	3.1	40.43	15.04	+16	45.86	5.67	− 7	51	84
23	+12	8	1.5	40.57	15.05	+19	45.86	5.66	− 3	51	84
24	+11	7	23.6	40.70	15.07	+18	45.86	5.65	+ 1	51	84
25	+ 9	7	21.5	40.84	15.08	+14	45.86	5.64	+ 5	51	84
26	+ 4	+ 8	19.3	+40.98	−15.09	+ 7	45.85	+5.63	+ 8	51	84
27	− 1	10	17.6	41.12	15.10	− 2	45.85	5.62	+ 9	52	84
28	− 8	11	16.1	41.26	15.10	−13	45.85	5.61	+ 9	52	84
29	−13	11	14.6	41.40	15.11	−22	45.85	5.60	+ 7	52	84
30	−17	11	13.1	41.53	15.11	−28	45.85	5.59	+ 3	52	85
31	−17	11	11.5	41.67	15.12	−28	45.85	5.58	− 2	52	85
Nov. 1	−14	+11	9.8	+41.81	−15.12	−23	45.85	+5.57	− 6	52	85
2	− 9	11	8.1	41.95	15.12	−14	45.84	5.56	− 9	53	85
3	− 1	11	6.2	42.08	15.12	− 2	45.84	5.54	−11	53	85
4	+ 7	11	4.4	42.22	15.11	+11	45.84	5.53	−10	53	85
5	+13	10	2.4	42.36	15.11	+21	45.84	5.52	− 6	53	85
6	+16	10	0.4	42.50	15.10	+26	45.84	5.51	− 1	53	85
7	+15	+11	22.5	+42.64	−15.09	+25	45.84	+5.49	+ 4	54	86
8	+11	11	20.8	42.78	15.08	+19	45.84	5.48	+ 8	54	86
9	+ 6	11	19.3	42.91	15.07	+ 9	45.84	5.47	+10	54	86
10	0	10	17.9	43.05	15.06	− 1	45.83	5.45	+10	54	86
11	− 6	9	16.3	43.19	15.05	−10	45.83	5.44	+ 8	55	86
12	− 9	7	14.3	43.33	15.03	−15	45.83	5.43	+ 4	55	86
13	−10	+ 6	11.9	+43.46	−15.01	−16	45.83	+5.42	0	55	86
14	− 8	7	9.3	43.60	14.99	−13	45.83	5.40	− 5	55	86
15	− 4	8	7.4	43.74	14.97	− 7	45.83	5.39	− 7	55	87
16	0	9	6.0	43.87	14.95	0	45.83	5.38	− 9	56	87
17	+ 5	10	4.7	44.01	14.93	+ 8	45.83	5.37	− 9	56	87
18	+ 8	9	3.5	44.15	14.90	+14	45.82	5.36	− 7	56	87
19	+11	+ 9	2.1	+44.28	−14.87	+18	45.82	+5.34	− 4	56	87
20	+11	8	0.4	44.42	14.84	+19	45.82	5.33	− 1	57	87
21	+10	7	22.2	44.56	14.81	+16	45.82	5.32	+ 3	57	87
22	+ 6	8	19.9	44.70	14.78	+ 9	45.82	5.31	+ 7	57	87
23	0	9	18.0	44.83	14.75	0	45.82	5.30	+ 9	57	88
24	− 6	+11	16.5	+44.97	−14.71	−11	45.82	+5.29	+10	58	88

Reduktionsgrößen 1947

Tag	0^h Weltzeit								
	Sternzeit Greenwich	*t*	*f*	log *g*	*G*	log *h*	*H*	log *i*	*i*
1947	h	a	s		h m		h m		″
Nov. 24	4.1	0.8947	+1.850	1.1202	22 25.4	1.3028	1 48.3	0.5982	+3.965
25	4.2	0.8975	1.861	1.1222	22 26.1	1.3034	1 44.5	0.5842	3.839
26	4.3	0.9002	1.872	1.1242	22 26.7	1.3039	1 40.6	0.5695	3.711
27	4.3	0.9029	1.882	1.1261	22 27.3	1.3044	1 36.8	0.5542	3.583
28	4.4	0.9057	1.893	1.1281	22 27.9	1.3048	1 33.0	0.5382	3.453
29	4.5	0.9084	1.904	1.1301	22 28.5	1.3053	1 29.2	0.5214	3.322
30	4.5	0.9112	+1.915	1.1322	22 29.1	1.3058	1 25.3	0.5038	+3.190
Dez. 1	4.6	0.9139	1.926	1.1342	22 29.7	1.3062	1 21.5	0.4853	3.057
2	4.7	0.9167	1.938	1.1362	22 30.2	1.3066	1 17.7	0.4658	2.923
3	4.7	0.9194	1.949	1.1383	22 30.8	1.3070	1 13.9	0.4454	2.789
4	4.8	0.9221	1.960	1.1404	22 31.3	1.3074	1 10.2	0.4237	2.653
5	4.9	0.9249	1.971	1.1425	22 31.9	1.3078	1 6.4	0.4007	2.516
6	4.9	0.9276	+1.983	1.1446	22 32.4	1.3082	1 2.6	0.3762	+2.378
7	5.0	0.9303	1.994	1.1467	22 32.9	1.3085	0 58.8	0.3501	2.239
8	5.1	0.9331	2.006	1.1488	22 33.4	1.3088	0 55.0	0.3222	2.100
9	5.1	0.9358	2.017	1.1509	22 33.9	1.3091	0 51.3	0.2925	1.961
10	5.2	0.9386	2.029	1.1530	22 34.4	1.3094	0 47.5	0.2601	1.820
11	5.3	0.9413	2.041	1.1552	22 34.9	1.3097	0 43.8	0.2251	1.679
12	5.3	0.9441	+2.053	1.1574	22 35.3	1.3099	0 40.0	0.1867	+1.537
13	5.4	0.9468	2.064	1.1595	22 35.8	1.3101	0 36.3	0.1446	1.395
14	5.5	0.9495	2.076	1.1617	22 36.2	1.3103	0 32.5	0.0976	1.252
15	5.5	0.9523	2.088	1.1638	22 36.6	1.3105	0 28.8	0.0449	1.109
16	5.6	0.9550	2.100	1.1660	22 37.0	1.3106	0 25.0	9.9850	0.966
17	5.7	0.9577	2.111	1.1681	22 37.4	1.3108	0 21.3	9.9149	0.822
18	5.7	0.9605	+2.123	1.1703	22 37.8	1.3109	0 17.5	9.8312	+0.678
19	5.8	0.9632	2.135	1.1725	22 38.2	1.3110	0 13.8	9.7275	0.534
20	5.8	0.9659	2.147	1.1747	22 38.5	1.3110	0 10.1	9.5899	0.389
21	5.9	0.9686	2.159	1.1768	22 38.9	1.3111	0 6.3	9.3892	0.245
22	6.0	0.9714	2.171	1.1790	22 39.2	1.3111	0 2.6	9.0000	+0.100
23	6.1	0.9741	2.183	1.1811	22 39.5	1.3111	23 58.8	8.6532*n*	—0.045
24	6.1	0.9768	+2.195	1.1833	22 39.8	1.3111	23 55.1	9.2788*n*	—0.190
25	6.2	0.9796	2.207	1.1854	22 40.1	1.3110	23 51.4	9.5237*n*	0.334
26	6.2	0.9823	2.219	1.1876	22 40.4	1.3110	23 47.6	9.6803*n*	0.479
27	6.3	0.9850	2.231	1.1897	22 40.7	1.3109	23 43.9	9.7945*n*	0.623
28	6.4	0.9878	2.243	1.1919	22 40.9	1.3108	23 40.1	9.8854*n*	0.768
29	6.4	0.9905	2.254	1.1940	22 41.1	1.3107	23 36.4	9.9600*n*	0.912
30	6.5	0.9933	+2.266	1.1962	22 41.3	1.3105	23 32.6	0.0237*n*	—1.056
31	6.6	0.9960	2.278	1.1983	22 41.5	1.3104	23 28.9	0.0792*n*	1.200
32	6.6	0.9988	+2.290	1.2004	22 41.7	1.3102	23 25.1	0.1278*n*	—1.342

Tag	f'	g'	G'	Allgemeine Präzession seit 1947.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
	0h Weltzeit										
1947	s in 0.001	in 0.01	h	"	"	in 0.01	23° 26′ "	"	in 0.01	in 0.001	
Nov. 24	− 6	+11	16.5	+44.97	−14.71	−11	45.82	+5.29	+10	58	88
25	−12	11	15.0	45.11	14.67	−20	45.82	5.28	+ 8	58	88
26	−17	12	13.6	45.25	14.63	−28	45.81	5.27	+ 5	58	88
27	−18	12	12.0	45.39	14.59	−30	45.81	5.26	0	58	88
28	−17	12	10.4	45.53	14.56	−27	45.81	5.25	− 5	59	88
29	−11	11	8.6	45.66	14.52	−18	45.81	5.25	− 9	59	88
30	− 4	+11	6.8	+45.80	−14.47	− 6	45.81	+5.24	−11	59	88
Dez. 1	+ 5	11	5.0	45.94	14.43	+ 7	45.81	5.23	−10	59	88
2	+11	11	3.0	46.08	14.38	+19	45.81	5.23	− 8	60	88
3	+16	11	1.0	46.21	14.34	+26	45.81	5.22	− 3	60	88
4	+17	11	23.1	46.35	14.29	+27	45.80	5.21	+ 3	60	89
5	+14	12	21.5	46.49	14.24	+23	45.80	5.21	+ 7	61	89
6	+ 8	+12	19.9	+46.62	−14.19	+14	45.80	+5.20	+10	61	89
7	+ 2	11	18.5	46.76	14.14	+ 4	45.80	5.20	+11	61	89
8	− 4	9	17.0	46.90	14.09	− 6	45.80	5.20	+ 9	62	89
9	− 8	7	15.1	47.03	14.04	−13	45.80	5.19	+ 5	62	89
10	−10	6	12.7	47.17	13.99	−16	45.80	5.19	+ 1	62	89
11	− 8	6	9.9	47.31	13.94	−14	45.79	5.19	− 3	62	89
12	− 5	+ 8	7.8	+47.45	−13.88	− 9	45.79	+5.19	− 7	63	89
13	− 1	9	6.3	47.58	13.83	− 2	45.79	5.19	− 9	63	89
14	+ 4	9	5.0	47.72	13.77	+ 6	45.79	5.19	− 9	63	89
15	+ 8	9	3.8	47.86	13.72	+13	45.79	5.19	− 8	64	89
16	+10	9	2.6	48.00	13.66	+17	45.79	5.19	− 6	64	89
17	+11	8	1.0	48.14	13.60	+19	45.79	5.19	− 2	64	89
18	+10	+ 7	22.9	+48.28	−13.54	+17	45.79	+5.20	+ 2	65	89
19	+ 7	7	20.6	48.41	13.49	+12	45.78	5.20	+ 6	65	89
20	+ 2	9	18.5	48.55	13.43	+ 3	45.78	5.20	+ 8	65	89
21	− 5	10	16.9	48.69	13.37	− 7	45.78	5.21	+10	66	89
22	−11	12	15.4	48.83	13.31	−18	45.78	5.22	+ 9	66	89
23	−17	13	14.0	48.96	13.26	−27	45.78	5.22	+ 6	66	89
24	−19	+13	12.6	+49.10	−13.20	−32	45.78	+5.23	+ 2	67	89
25	−19	13	11.1	49.24	13.14	−31	45.78	5.24	− 3	67	89
26	−15	12	9.4	49.38	13.08	−24	45.78	5.25	− 8	67	89
27	− 8	12	7.7	49.52	13.03	−12	45.77	5.26	−11	68	89
28	+ 1	11	5.8	49.66	12.97	+ 1	45.77	5.27	−11	68	89
29	+ 9	11	3.8	49.79	12.91	+15	45.77	5.28	− 9	68	89
30	+15	+11	1.7	+49.93	−12.85	+24	45.77	+5.29	− 5	69	89
31	+17	11	23.7	50.07	12.80	+28	45.77	5.30	+ 1	69	89
32	+16	+12	22.0	+50.21	−12.74	+26	45.77	+5.31	+ 6	69	89

Reduktionsgrößen 1947

für 12ʰ Sternzeit Greenwich

Weltzeit	t	A	Δ	A′	B	Δ	B′	C	Δ	D	Δ
1947	s			in 0.00001	″		in 0.001	″		″	
Jan. 0.225	−0.0027	−0.31390	374	−221	−2.659	15	− 96	− 2.920	329	+20.222	61
1.222	+0.0001	0.31016	373	−416	2.674	16	− 82	3.249	327	20.161	66
2.219	0.0028	0.30643	371	−554	2.690	15	− 49	3.576	326	20.095	72
3.217	0.0055	0.30272	370	−591	2.705	16	− 2	3.902	326	20.023	78
4.214	0.0083	0.29902	370	−510	2.721	16	+ 48	4.228	324	19.945	85
5.211	0.0110	0.29532	368	−314	2.737	18	+ 86	4.552	322	19.860	91
6.209	0.0137	−0.29164	366	− 53	−2.755	19	+105	− 4.874	321	+19.769	98
7.206	0.0165	0.28798	365	+221	2.774	19	+ 96	5.195	319	19.671	103
8.203	0.0192	0.28433	363	+443	2.793	20	+ 64	5.514	318	19.568	110
9.200	0.0219	0.28070	361	+572	2.813	20	+ 17	5.832	316	19.458	116
10.198	0.0246	0.27709	359	+578	2.833	20	− 34	6.148	314	19.342	122
11.195	0.0274	0.27350	356	+478	2.853	21	− 75	6.462	312	19.220	127
12.192	0.0301	−0.26994	355	+300	−2.874	21	−101	− 6.774	309	+19.093	134
13.189	0.0328	0.26639	353	+ 95	2.895	22	−103	7.083	308	18.959	141
14.187	0.0356	0.26286	349	− 90	2.917	23	− 84	7.391	305	18.818	145
15.184	0.0383	0.25937	347	−226	2.940	23	− 52	7.696	302	18.673	152
16.181	0.0410	0.25590	345	−287	2.963	23	− 12	7.998	299	18.521	157
17.178	0.0438	0.25245	344	−280	2.986	24	+ 26	8.297	297	18.364	163
18.176	0.0465	−0.24901	339	−214	−3.010	25	+ 59	− 8.594	295	+18.201	169
19.173	0.0492	0.24562	336	−106	3.035	25	+ 83	8.889	292	18.032	174
20.170	0.0519	0.24226	334	+ 18	3.060	25	+ 90	9.181	288	17.858	181
21.168	0.0547	0.23892	332	+145	3.085	25	+ 82	9.469	286	17.677	186
22.165	0.0574	0.23560	329	+245	3.110	25	+ 61	9.755	283	17.491	191
23.162	0.0601	0.23231	327	+304	3.135	26	+ 31	10.038	280	17.300	196
24.159	0.0629	−0.22904	324	+301	−3.161	26	− 7	−10.318	276	+17.104	202
25.157	0.0656	0.22580	319	+225	3.187	26	− 46	10.594	273	16.902	207
26.154	0.0683	0.22261	316	+ 81	3.213	27	− 76	10.867	269	16.695	211
27.151	0.0711	0.21945	313	−117	3.240	27	− 93	11.136	266	16.484	218
28.148	0.0738	0.21632	310	−320	3.267	27	− 89	11.402	262	16.266	223
29.146	0.0765	0.21322	307	−489	3.294	27	− 63	11.664	258	16.043	227
30.143	0.0793	−0.21015	303	−578	−3.321	27	− 21	−11.922	254	+15.816	232
31.140	0.0820	0.20712	300	−554	3.348	28	+ 28	12.176	251	15.584	237
Febr. 1.138	0.0847	0.20412	299	−419	3.376	27	+ 74	12.427	247	15.347	241
2.135	0.0874	0.20113	297	−191	3.403	28	+ 99	12.674	242	15.106	246
3.132	0.0902	0.19816	292	+ 74	3.431	27	+103	12.916	239	14.860	251
4.129	0.0929	0.19524	288	+319	3.458	28	+ 80	13.155	234	14.609	255
5.127	0.0956	−0.19236	285	+489	−3.486	27	+ 39	−13.389	231	+14.354	261
6.124	0.0984	0.18951	282	+552	3.513	27	− 12	13.620	226	14.093	264
7.121	0.1011	0.18669	279	+501	3.540	28	− 59	13.846	221	13.829	268
8.118	0.1038	0.18390	275	+356	3.568	27	− 93	14.067	217	13.561	272
9.116	0.1066	0.18115	273	+163	3.595	27	−106	14.284	213	13.289	277
10.113	0.1093	−0.17842		− 34	−3.622		− 97	−14.497		+13.012	

Reduktionsgrößen 1947

für 12ʰ Sternzeit Greenwich

Weltzeit	t	A		A′	B		B′	C		D	
1947	a			in 0.00001	″		in 0.″001	″		″	
Febr. 10.113	0.1093	−0.17842	269	− 34	−3.622	26	− 97	−14.497	208	+13.012	280
11.110	0.1120	0.17573	267	−191	3.648	27	− 68	14.705	204	12.732	284
12.107	0.1147	0.17306	263	−282	3.675	26	− 31	14.909	199	12.448	288
13.105	0.1175	0.17043	260	−296	3.701	27	+ 12	15.108	194	12.160	291
14.102	0.1202	0.16783	257	−247	3.728	26	+ 50	15.302	189	11.869	295
15.099	0.1229	0.16526	255	−145	3.754	26	+ 78	15.491	184	11.574	300
16.097	0.1257	−0.16271	252	− 16	−3.780	25	+ 91	−15.675	179	+11.274	302
17.094	0.1284	0.16019	248	+115	3.805	25	+ 88	15.854	174	10.972	304
18.091	0.1311	0.15771	245	+232	3.830	25	+ 70	16.028	169	10.668	309
19.088	0.1339	0.15526	243	+307	3.855	24	+ 44	16.197	165	10.359	311
20.086	0.1366	0.15283	241	+328	3.879	24	+ 6	16.362	159	10.048	315
21.083	0.1393	0.15042	238	+276	3.903	24	− 33	16.521	154	9.733	317
22.080	0.1421	−0.14804	235	+155	−3.927	23	− 68	−16.675	149	+ 9.416	320
23.077	0.1448	0.14569	232	− 19	3.950	23	− 88	16.824	144	9.096	322
24.075	0.1475	0.14337	230	−220	3.973	22	− 90	16.968	137	8.774	325
25.072	0.1502	0.14107	227	−403	3.995	22	− 75	17.105	134	8.449	328
26.069	0.1530	0.13880	225	−525	4.017	22	− 37	17.239	128	8.121	330
27.067	0.1557	0.13655	224	−549	4.039	21	+ 10	17.367	122	7.791	332
28.064	0.1584	−0.13431	223	−462	−4.060	21	+ 55	−17.489	116	+ 7.459	334
März 1.061	0.1612	0.13208	220	−275	4.081	20	+ 90	17.605	112	7.125	336
2.058	0.1639	0.12988	217	− 33	4.101	20	+103	17.717	106	6.789	339
3.056	0.1666	0.12771	216	+213	4.121	19	+ 90	17.823	101	6.450	340
4.053	0.1694	0.12555	214	+410	4.140	18	+ 59	17.924	94	6.110	342
5.050	0.1721	0.12341	211	+509	4.158	18	+ 10	18.018	90	5.768	343
6.047	0.1748	−0.12130	210	+504	−4.176	17	− 40	−18.108	84	+ 5.425	345
7.045	0.1775	0.11920	209	+394	4.193	16	− 79	18.192	79	5.080	346
8.042	0.1802	0.11711	209	+221	4.209	16	−101	18.271	73	4.734	347
9.039	0.1829	0.11502	206	+ 23	4.225	15	−105	18.344	67	4.387	349
10.036	0.1857	0.11296	204	−151	4.240	15	− 81	18.411	61	4.038	349
11.034	0.1885	0.11092	205	−271	4.255	14	− 48	18.472	56	3.689	351
12.031	0.1912	−0.10887	204	−314	−4.269	14	− 5	−18.528	51	+ 3.338	351
13.028	0.1939	0.10683	203	−287	4.283	13	+ 34	18.579	45	2.987	352
14.026	0.1967	0.10480	202	−200	4.296	12	+ 68	18.624	39	2.635	352
15.023	0.1994	0.10278	201	− 75	4.308	11	+ 88	18.663	34	2.283	353
16.020	0.2021	0.10077	199	+ 65	4.319	11	+ 92	18.697	28	1.930	354
17.017	0.2049	0.09878	201	+193	4.330	10	+ 80	18.725	22	1.576	354
18.015	0.2076	−0.09677	201	+288	−4.340	9	+ 54	−18.747	16	+ 1.222	354
19.012	0.2103	0.09476	200	+333	4.349	9	+ 20	18.763	11	0.868	354
20.009	0.2130	0.09276	198	+309	4.358	8	− 20	18.774	5	0.514	354
21.006	0.2158	0.09078	200	+213	4.366	7	− 58	18.779	0	+ 0.160	353
22.004	0.2185	0.08878	200	+ 56	4.373	7	− 84	18.779	6	− 0.193	354
23.001	0.2212	−0.08678		−142	−4.380		− 94	−18.773		− 0.547	

Reduktionsgrößen 1947

für 12ʰ Sternzeit Greenwich

Weltzeit	t	A		A'	B		B'	C		D	
1947	a			in 0.00001	″		in 0.001	″		″	
März 23.001	0.2212	−0.08678	200	−142	−4.380	6	− 94	−18.773	11	− 0.547	353
23.998	0.2240	0.08478	200	−330	4.386	6	− 83	18.762	17	0.900	353
24.996	0.2267	0.08278	201	−472	4.392	5	− 52	18.745	23	1.253	352
25.993	0.2294	0.08077	202	−531	4.397	3	− 8	18.722	28	1.605	351
26.990	0.2322	0.07875	202	−481	4.400	3	+ 40	18.694	33	1.956	351
27.987	0.2349	0.07673	202	−329	4.403	3	+ 81	18.661	40	2.307	350
28.985	0.2376	−0.07471	203	−107	−4.406	2	+102	−18.621	44	− 2.657	349
29.982	0.2403	0.07268	205	+139	4.408	2	+ 98	18.577	50	3.006	348
30.979	0.2431	0.07063	205	+355	4.410	1	+ 72	18.527	56	3.354	346
31.976	0.2458	0.06858	206	+488	4.411	1	+ 29	18.471	62	3.700	345
April 1.974	0.2485	0.06652	208	+516	4.412	0	− 21	18.409	66	4.045	344
2.971	0.2513	0.06444	209	+437	4.412	1	− 66	18.343	72	4.389	342
3.968	0.2540	−0.06235	210	+281	−4.411	2	− 94	−18.271	77	− 4.731	341
4.965	0.2567	0.06025	211	+ 88	4.409	2	−104	18.194	82	5.072	338
5.963	0.2595	0.05814	213	−102	4.407	3	− 91	18.112	88	5.410	338
6.960	0.2622	0.05601	216	−243	4.404	3	− 62	18.024	92	5.748	336
7.957	0.2649	0.05385	216	−317	4.401	3	− 22	17.932	99	6.084	333
8.955	0.2677	0.05169	218	−317	4.398	4	+ 18	17.833	103	6.417	331
9.952	0.2704	−0.04951	220	−253	−4.394	5	+ 55	−17.730	109	− 6.748	329
10.949	0.2731	0.04731	223	−139	4.389	5	+ 80	17.621	113	7.077	327
11.946	0.2758	0.04508	224	− 3	4.384	5	+ 94	17.508	118	7.404	325
12.944	0.2786	0.04284	226	+135	4.379	6	+ 88	17.390	123	7.729	322
13.941	0.2813	0.04058	228	+249	4.373	7	+ 67	17.267	129	8.051	320
14.938	0.2840	0.03830	232	+316	4.366	7	+ 37	17.138	133	8.371	317
15.935	0.2868	−0.03598	234	+319	−4.359	7	− 4	−17.005	139	− 8.688	314
16.933	0.2895	0.03364	235	+244	4.352	8	− 45	16.866	143	9.002	312
17.930	0.2922	0.03129	237	+108	4.344	8	− 77	16.723	148	9.314	309
18.927	0.2950	0.02892	240	− 80	4.336	8	− 92	16.575	152	9.623	306
19.925	0.2977	0.02652	242	−276	4.328	8	− 91	16.423	157	9.929	303
20.922	0.3004	0.02410	245	−439	4.320	9	− 68	16.266	162	10.232	300
21.919	0.3031	−0.02165	248	−528	−4.311	9	− 26	−16.104	166	−10.532	295
22.916	0.3059	0.01917	251	−511	4.302	10	+ 22	15.938	171	10.827	293
23.914	0.3086	0.01666	253	−386	4.292	9	+ 67	15.767	175	11.120	290
24.911	0.3113	0.01413	255	−174	4.283	10	+ 97	15.592	181	11.410	286
25.908	0.3141	0.01158	259	+ 78	4.273	10	+103	15.411	183	11.696	283
26.905	0.3168	0.00899	262	+314	4.263	10	+ 86	15.228	188	11.979	279
27.903	0.3195	−0.00637	263	+482	−4.253	10	+ 47	−15.040	192	−12.258	276
28.900	0.3223	0.00374	266	+545	4.243	11	− 3	14.848	196	12.534	272
29.897	0.3250	−0.00108	269	+501	4.232	11	− 49	14.652	201	12.806	267
30.895	0.3277	+0.00161	272	+364	4.221	11	− 86	14.451	204	13.073	265
Mai 1.892	0.3305	0.00433	276	+171	4.210	11	−101	14.247	209	13.338	260
2.889	0.3332	+0.00709		− 25	−4.199		− 99	−14.038		−13.598	

Reductionsgrößen 1947

für 12ʰ Sternzeit Greenwich

Weltzeit		t	A		A′	B		B′	C		D	
1947		a			in 0.00001	″		in ″0.001	″		″	
Mai	2.889	0.3332	+0.00709	279	− 25	−4.199	10	− 99	−14.038	212	−13.598	256
	3.886	0.3359	0.00988	280	−192	4.189	11	− 74	13.826	217	13.854	252
	4.884	0.3386	0.01268	283	−293	4.178	10	− 37	13.609	221	14.106	249
	5.881	0.3414	0.01551	287	−320	4.168	11	+ 3	13.388	224	14.355	244
	6.878	0.3441	0.01838	289	−283	4.157	11	+ 41	13.164	227	14.599	240
	7.875	0.3468	0.02127	291	−188	4.146	11	+ 71	12.937	231	14.839	235
	8.873	0.3496	+0.02418	294	− 60	−4.135	11	+ 89	−12.706	234	−15.074	231
	9.870	0.3523	0.02712	298	+ 76	4.124	11	+ 91	12.472	238	15.305	226
	10.867	0.3550	0.03010	301	+200	4.113	10	+ 76	12.234	241	15.531	222
	11.864	0.3578	0.03311	302	+286	4.103	10	+ 48	11.993	245	15.753	217
	12.862	0.3605	0.03613	304	+304	4.093	10	+ 12	11.748	248	15.970	213
	13.859	0.3632	0.03917	308	+271	4.083	10	− 29	11.500	251	16.183	208
	14.856	0.3659	+0.04225	311	+157	−4.073	10	− 65	−11.249	254	−16.391	204
	15.854	0.3687	0.04536	314	− 18	4.063	10	− 91	10.995	257	16.595	200
	16.851	0.3714	0.04850	316	−225	4.053	10	− 96	10.738	261	16.795	193
	17.848	0.3741	0.05166	319	−414	4.043	9	− 82	10.477	262	16.988	189
	18.845	0.3769	0.05485	322	−541	4.034	8	− 44	10.215	265	17.177	184
	19.843	0.3796	0.05807	324	−567	4.026	9	+ 3	9.950	268	17.361	179
	20.840	0.3823	+0.06131	326	−477	−4.017	8	+ 51	− 9.682	271	−17.540	174
	21.837	0.3851	0.06457	328	−284	4.009	8	+ 90	9.411	273	17.714	169
	22.834	0.3878	0.06785	330	− 25	4.001	8	+107	9.138	276	17.883	165
	23.832	0.3905	0.07115	332	+239	3.993	7	+ 98	8.862	278	18.048	159
	24.829	0.3933	0.07447	335	+450	3.986	7	+ 66	8.584	280	18.207	154
	25.826	0.3960	0.07782	337	+566	3.979	7	+ 18	8.304	283	18.361	148
	26.824	0.3987	+0.08119	340	+564	−3.972	7	− 34	− 8.021	285	−18.509	144
	27.821	0.4014	0.08459	341	+454	3.965	6	− 74	7.736	287	18.653	137
	28.818	0.4042	0.08800	343	+274	3.959	5	−100	7.449	289	18.790	133
	29.815	0.4069	0.09143	345	+ 68	3.954	5	−103	7.160	290	18.923	128
	30.813	0.4096	0.09488	346	−118	3.949	4	− 85	6.870	292	19.051	123
	31.810	0.4124	0.09834	349	−248	3.945	4	− 52	6.578	295	19.174	117
Juni	1.807	0.4151	+0.10183	352	−302	−3.941	3	− 10	− 6.283	296	−19.291	112
	2.804	0.4178	0.10535	353	−286	3.938	3	+ 30	5.987	298	19.403	106
	3.802	0.4206	0.10888	353	−209	3.935	2	+ 62	5.689	298	19.509	100
	4.799	0.4233	0.11241	354	− 94	3.933	2	+ 82	5.391	301	19.609	95
	5.796	0.4260	0.11595	356	+ 38	3.931	2	+ 90	5.090	302	19.704	90
	6.793	0.4287	0.11951	357	+162	3.929	1	+ 82	4.788	304	19.794	84
	7.791	0.4315	+0.12308	357	+260	−3.928	0	+ 59	− 4.484	304	−19.878	79
	8.788	0.4342	0.12665	360	+310	3.928	1	+ 28	4.180	305	19.957	73
	9.785	0.4369	0.13025	362	+293	3.929	1	− 13	3.875	306	20.030	67
	10.783	0.4397	0.13387	362	+208	3.930	1	− 53	3.569	308	20.097	62
	11.780	0.4424	0.13749	363	+ 49	3.931	1	− 82	3.261	308	20.159	56
	12.777	0.4451	+0.14112		−152	−3.932		− 97	− 2.953		−20.215	

Reductionsgrößen 1947

für 12ʰ Sternzeit Greenwich

Weltzeit	t	A	Δ	A′	B	Δ	B′	C	Δ	D	Δ
1947	a			in 0.00001	″		in 0.001 ″	″		″	
Juni 12.777	0.4451	+0.14112	363	−152	−3.932	2	− 97	−2.953	309	−20.215	51
13.774	0.4479	0.14475	363	−363	3.934	3	− 90	2.644	309	20.266	45
14.772	0.4506	0.14838	365	−531	3.937	4	− 64	2.335	310	20.311	40
15.769	0.4533	0.15203	366	−612	3.941	4	− 19	2.025	311	20.351	34
16.766	0.4561	0.15569	365	−574	3.945	4	+ 31	1.714	311	20.385	28
17.763	0.4588	0.15934	366	−420	3.949	5	+ 78	1.403	311	20.413	23
18.761	0.4615	+0.16300	367	−176	−3.954	6	+104	−1.092	311	−20.436	16
19.758	0.4642	0.16667	367	+102	3.960	6	+108	0.781	312	20.452	11
20.755	0.4670	0.17034	367	+358	3.966	7	+ 83	0.469	312	20.463	6
21.753	0.4697	0.17401	367	+531	3.973	7	+ 41	−0.157	312	20.469	0
22.750	0.4724	0.17768	366	+589	3.980	8	− 12	+0.155	312	20.469	5
23.747	0.4752	0.18134	367	+529	3.988	9	− 62	0.467	312	20.464	11
24.744	0.4779	+0.18501	366	+372	−3.997	10	− 96	+0.779	311	−20.453	17
25.742	0.4806	0.18867	366	+170	4.007	10	−106	1.090	311	20.436	23
26.739	0.4834	0.19233	366	− 32	4.017	10	− 96	1.401	311	20.413	28
27.736	0.4861	0.19599	365	−189	4.027	11	− 65	1.712	310	20.385	34
28.733	0.4888	0.19964	364	−271	4.038	12	− 25	2.022	310	20.351	39
29.731	0.4915	0.20328	364	−275	4.050	12	+ 17	2.332	309	20.312	45
30.728	0.4943	+0.20692	362	−215	−4.062	12	+ 52	+2.641	308	−20.267	51
Juli 1.725	0.4970	0.21054	362	−109	4.074	13	+ 78	2.949	307	20.216	56
2.722	0.4997	0.21416	361	+ 17	4.087	14	+ 90	3.256	306	20.160	62
3.720	0.5025	0.21777	359	+146	4.101	14	+ 83	3.562	305	20.098	67
4.717	0.5052	0.22136	359	+250	4.115	15	+ 69	3.867	305	20.031	73
5.714	0.5079	0.22495	359	+313	4.130	16	+ 40	4.172	304	19.958	78
6.712	0.5107	+0.22854	356	+319	−4.146	16	+ 4	+4.476	302	−19.880	83
7.709	0.5134	0.23210	354	+257	4.162	16	− 36	4.778	301	19.797	89
8.706	0.5161	0.23564	354	+125	4.178	17	− 71	5.079	298	19.708	95
9.703	0.5189	0.23918	353	− 61	4.195	17	− 92	5.377	298	19.613	101
10.701	0.5216	0.24271	351	−275	4.212	18	− 95	5.675	296	19.512	105
11.698	0.5243	0.24622	350	−472	4.230	19	− 76	5.971	295	19.407	110
12.695	0.5270	+0.24972	348	−604	−4.249	18	− 37	+6.266	292	−19.297	116
13.692	0.5298	0.25320	345	−630	4.267	19	+ 9	6.558	291	19.181	121
14.690	0.5325	0.25665	344	−538	4.286	20	+ 60	6.849	290	19.060	127
15.687	0.5352	0.26009	342	−337	4.306	20	+ 96	7.139	288	18.933	132
16.684	0.5380	0.26351	340	− 67	4.326	20	+108	7.427	285	18.801	136
17.682	0.5407	0.26691	338	+214	4.346	21	+ 98	7.712	284	18.665	143
18.679	0.5434	+0.27029	337	+433	−4.367	21	+ 62	+7.996	281	−18.522	147
19.676	0.5462	0.27366	334	+556	4.388	22	+ 11	8.277	279	18.375	152
20.673	0.5489	0.27700	332	+554	4.410	22	− 41	8.556	276	18.223	158
21.671	0.5516	0.28032	330	+440	4.432	22	− 84	8.832	274	18.065	163
22.668	0.5543	0.28362	326	+254	4.454	22	−107	9.106	272	17.902	167
23.665	0.5571	+0.28688		+ 48	−4.476		−104	+9.378		−17.735	

Reduktionsgrößen 1947

für 12ʰ Sternzeit Greenwich

Weltzeit		t	A		A′	B		B′	C		D	
1947		a			in 0.00001	″		in 0.001 ″	″		″	
Juli	23.665	0.5571	+0.28688	324	+ 48	−4.476	23	−104	+ 9.378	269	−17.735	172
	24.662	0.5598	0.29012	323	−131	4.499	24	− 81	9.647	267	17.563	178
	25.660	0.5625	0.29335	321	−241	4.523	24	− 42	9.914	264	17.385	182
	26.657	0.5653	0.29656	318	−271	4.547	23	+ 1	10.178	261	17.203	187
	27.654	0.5680	0.29974	314	−229	4.570	24	+ 41	10.439	257	17.016	192
	28.651	0.5707	0.30288	313	−127	4.594	24	+ 71	10.696	256	16.824	196
	29.649	0.5735	+0.30601	312	+ 1	−4.618	24	+ 87	+10.952	253	−16.628	201
	30.646	0.5762	0.30913	308	+132	4.642	24	+ 87	11.205	249	16.427	205
	31.643	0.5789	0.31221	305	+246	4.666	25	+ 74	11.454	246	16.222	210
Aug.	1.641	0.5817	0.31526	302	+320	4.691	24	+ 49	11.700	243	16.012	214
	2.638	0.5844	0.31828	299	+345	4.715	25	+ 15	11.943	240	15.798	220
	3.635	0.5871	0.32127	298	+305	4.740	25	− 22	12.183	237	15.578	223
	4.632	0.5898	+0.32425	296	+198	−4.765	25	− 58	+12.420	233	−15.355	228
	5.630	0.5926	0.32721	292	+ 33	4.790	25	− 85	12.653	229	15.127	232
	6.627	0.5953	0.33013	289	−172	4.815	25	− 95	12.882	226	14.895	236
	7.624	0.5980	0.33302	287	−378	4.840	25	− 86	13.108	223	14.659	240
	8.621	0.6008	0.33589	284	−540	4.865	25	− 54	13.331	218	14.419	244
	9.619	0.6035	0.33873	282	−619	4.890	25	− 12	13.549	215	14.175	249
	10.616	0.6062	+0.34155	279	−590	−4.915	25	+ 39	+13.764	212	−13.926	253
	11.613	0.6090	0.34434	276	−444	4.940	25	+ 82	13.976	208	13.673	256
	12.611	0.6117	0.34710	272	−212	4.965	26	+105	14.184	204	13.417	261
	13.608	0.6144	0.34982	270	+ 60	4.991	25	+108	14.388	199	13.156	264
	14.605	0.6171	0.35252	267	+309	5.016	24	+ 79	14.587	196	12.892	268
	15.602	0.6199	0.35519	265	+475	5.040	24	+ 36	14.783	192	12.624	271
	16.600	0.6226	+0.35784	263	+531	−5.064	24	− 20	+14.975	187	−12.353	275
	17.597	0.6253	0.36047	261	+467	5.088	25	− 69	15.162	184	12.078	278
	18.594	0.6281	0.36308	258	+313	5.113	24	−101	15.346	178	11.800	281
	19.591	0.6308	0.36566	255	+111	5.137	23	−110	15.524	175	11.519	285
	20.589	0.6335	0.36821	252	− 80	5.160	23	− 94	15.699	171	11.234	288
	21.586	0.6363	0.37073	249	−220	5.183	24	− 60	15.870	166	10.946	292
	22.583	0.6390	+0.37322	247	−281	−5.207	23	− 16	+16.036	162	−10.654	295
	23.581	0.6417	0.37569	245	−256	5.230	23	+ 27	16.198	157	10.359	299
	24.578	0.6445	0.37814	244	−168	5.253	23	+ 63	16.355	153	10.060	301
	25.575	0.6472	0.38058	242	− 38	5.276	22	+ 86	16.508	148	9.759	303
	26.572	0.6499	0.38300	239	+102	5.298	22	+ 90	16.656	144	9.456	306
	27.570	0.6526	0.38539	235	+233	5.320	21	+ 81	16.800	138	9.150	309
	28.567	0.6554	+0.38774	232	+325	−5.341	21	+ 59	+16.938	134	− 8.841	312
	29.564	0.6581	0.39006	231	+367	5.362	20	+ 26	17.072	129	8.529	314
	30.561	0.6608	0.39237	230	+347	5.382	20	− 10	17.201	124	8.215	317
	31.559	0.6636	0.39467	228	+260	5.402	20	− 47	17.325	120	7.898	319
Sept.	1.556	0.6663	0.39695	226	+116	5.422	19	− 77	17.445	115	7.579	321
	2.553	0.6690	+0.39921		− 74	−5.441		− 91	+17.560		− 7.258	

Reductionsgrößen 1947

für 12^h Sternzeit Greenwich

Weltzeit	*t*	*A*		*A'*	*B*		*B'*	*C*		*D*	
1947	a			in 0.00001	"		in 0.001	"		"	
Sept. 2.553	0.6690	+0.39921	224	− 74	−5.441	19	− 91	+17.560	110	−7.258	324
3.550	0.6718	0.40145	222	−277	5.460	18	− 89	17.670	105	6.934	326
4.548	0.6745	0.40367	220	−457	5.478	18	− 67	17.775	100	6.608	327
5.545	0.6772	0.40587	219	−570	5.496	18	− 28	17.875	93	6.281	329
6.542	0.6799	0.40806	217	−587	5.514	17	+ 18	17.968	90	5.952	332
7.540	0.6827	0.41023	216	−491	5.531	16	+ 66	18.058	85	5.620	334
8.537	0.6854	+0.41239	215	−300	−5.547	15	+ 97	+18.143	80	−5.286	335
9.534	0.6881	0.41454	213	− 50	5.562	15	+107	18.223	74	4.951	337
10.531	0.6909	0.41667	212	+202	5.577	14	+ 94	18.297	69	4.614	338
11.529	0.6936	0.41879	212	+394	5.591	14	+ 56	18.366	64	4.276	340
12.526	0.6963	0.42091	210	+493	5.605	14	+ 6	18.430	58	3.936	341
13.523	0.6991	0.42301	208	+475	5.619	13	− 46	18.488	53	3.595	342
14.520	0.7018	+0.42509	208	+351	−5.632	12	− 90	+18.541	48	−3.253	343
15.518	0.7045	0.42717	207	+167	5.644	12	−108	18.589	43	2.910	344
16.515	0.7073	0.42924	207	− 32	5.656	11	−104	18.632	37	2.566	345
17.512	0.7100	0.43131	207	−197	5.667	11	− 76	18.669	32	2.221	346
18.510	0.7127	0.43338	205	−289	5.678	9	− 36	18.701	27	1.875	347
19.507	0.7154	0.43543	205	−297	5.687	9	+ 9	18.728	20	1.528	347
20.504	0.7182	+0.43748	205	−229	−5.696	9	+ 50	+18.748	16	−1.181	348
21.501	0.7209	0.43953	205	−101	5.705	8	+ 80	18.764	10	0.833	348
22.499	0.7236	0.44158	204	+ 47	5.713	7	+ 93	18.774	5	0.485	349
23.496	0.7264	0.44362	204	+190	5.720	7	+ 88	18.779	0	−0.136	349
24.493	0.7291	0.44566	204	+306	5.727	6	+ 69	18.779	6	+0.213	349
25.490	0.7318	0.44770	205	+369	5.733	5	+ 39	18.773	11	0.562	350
26.488	0.7346	+0.44975	205	+373	−5.738	5	+ 3	+18.762	17	+0.912	349
27.485	0.7373	0.45180	206	+308	5.743	5	− 36	18.745	23	1.261	349
28.482	0.7400	0.45386	206	+181	5.748	4	− 69	18.722	28	1.610	348
29.479	0.7427	0.45592	206	+ 4	5.752	2	− 90	18.694	33	1.958	348
30.477	0.7455	0.45798	207	−194	5.754	2	− 93	18.661	39	2.306	348
Okt. 1.474	0.7482	0.46005	207	−383	5.756	1	− 79	18.622	44	2.654	347
2.471	0.7509	+0.46212	209	−518	−5.757	1	− 43	+18.578	50	+3.001	346
3.469	0.7537	0.46421	211	−564	5.758	1	0	18.528	55	3.347	345
4.466	0.7564	0.46632	212	−508	5.759	0	+ 49	18.473	62	3.692	345
5.463	0.7591	0.46844	212	−349	5.759	1	+ 87	18.411	66	4.037	344
6.460	0.7619	0.47056	214	−122	5.758	1	+107	18.345	72	4.381	343
7.458	0.7646	0.47270	214	+128	5.757	2	+102	18.273	77	4.724	342
8.455	0.7673	+0.47484	216	+339	−5.755	3	+ 72	+18.196	82	+5.066	340
9.452	0.7701	0.47700	219	+470	5.752	4	+ 25	18.114	88	5.406	338
10.449	0.7728	0.47919	220	+490	5.748	4	− 28	18.026	93	5.744	337
11.447	0.7755	0.48139	220	+401	5.744	4	− 73	17.933	100	6.081	336
12.444	0.7782	0.48359	223	+231	5.740	5	−102	17.833	104	6.417	334
13.441	0.7810	+0.48582		+ 26	−5.735		−107	+17.729		+6.751	

Weltzeit	t	A		A′	B		B′	C		D	
1947	a			in 0.00001	″		in 0.001	″		″	
Okt. 13.441	0.7810	+0.48582	226	+ 26	−5.735	5	−107	+17.729	109	+ 6.751	332
14.439	0.7837	0.48808	227	−155	5.730	6	− 89	17.620	115	7.083	330
15.436	0.7864	0.49035	229	−279	5.724	6	− 55	17.505	120	7.413	328
16.433	0.7892	0.49264	231	−324	5.718	7	− 11	17.385	125	7.741	326
17.430	0.7919	0.49495	234	−294	5.711	8	+ 34	17.260	131	8.067	324
18.428	0.7946	0.49729	236	−174	5.703	8	+ 69	17.129	135	8.391	322
19.425	0.7974	+0.49965	239	− 28	−5.695	9	+ 91	+16.994	141	+ 8.713	319
20.422	0.8001	0.50204	241	+125	5.686	8	+ 92	16.853	146	9.032	317
21.419	0.8028	0.50445	243	+262	5.678	9	+ 79	16.707	151	9.349	314
22.417	0.8055	0.50688	246	+351	5.669	9	+ 53	16.556	156	9.663	311
23.414	0.8083	0.50934	248	+380	5.660	10	+ 16	16.400	161	9.974	308
24.411	0.8110	0.51182	252	+341	5.650	10	− 23	16.239	166	10.282	306
25.408	0.8137	+0.51434	255	+235	−5.640	10	− 59	+16.073	171	+10.588	303
26.406	0.8165	0.51689	257	+ 69	5.630	11	− 86	15.902	176	10.891	298
27.403	0.8192	0.51946	260	−132	5.619	11	− 94	15.726	181	11.189	296
28.400	0.8219	0.52206	263	−328	5.608	11	− 87	15.545	186	11.485	293
29.398	0.8247	0.52469	265	−485	5.597	12	− 59	15.359	190	11.778	289
30.395	0.8274	0.52734	268	−563	5.585	11	− 15	15.169	194	12.067	286
31.392	0.8301	+0.53002	271	−539	−5.574	12	+ 32	+14.975	200	+12.353	282
Nov. 1.389	0.8329	0.53273	275	−407	5.562	12	+ 77	14.775	204	12.635	279
2.387	0.8356	0.53548	279	−192	5.550	13	+105	14.571	209	12.914	275
3.384	0.8383	0.53827	281	+ 62	5.537	12	+106	14.362	213	13.189	271
4.381	0.8410	0.54108	284	+298	5.525	12	+ 85	14.149	217	13.460	267
5.378	0.8438	0.54392	287	+459	5.513	13	+ 44	13.932	223	13.727	264
6.376	0.8465	+0.54679	291	+519	−5.500	13	− 8	+13.709	226	+13.991	259
7.373	0.8492	0.54970	294	+462	5.487	13	− 58	13.483	231	14.250	254
8.370	0.8520	0.55264	297	+313	5.474	13	− 93	13.252	234	14.504	250
9.368	0.8547	0.55561	300	+116	5.461	13	−107	13.018	239	14.754	246
10.365	0.8574	0.55861	302	− 84	5.448	13	− 98	12.779	242	15.000	241
11.362	0.8602	0.56163	306	−240	5.435	13	− 68	12.537	247	15.241	237
12.359	0.8629	+0.56469	310	−307	−5.422	12	− 25	+12.290	251	+15.478	232
13.357	0.8656	0.56779	312	−309	5.410	12	+ 17	12.039	255	15.710	228
14.354	0.8683	0.57091	316	−230	5.398	11	+ 56	11.784	258	15.938	223
15.351	0.8711	0.57407	320	− 95	5.387	12	+ 84	11.526	262	16.161	217
16.348	0.8738	0.57727	324	+ 56	5.375	12	+ 93	11.264	265	16.378	213
17.346	0.8765	0.58051	325	+202	5.363	12	+ 86	10.999	269	16.591	208
18.343	0.8793	+0.58376	328	+311	−5.351	11	+ 65	+10.730	272	+16.799	203
19.340	0.8820	0.58704	332	+369	5.340	11	+ 32	10.458	276	17.002	198
20.337	0.8847	0.59036	335	+358	5.329	11	− 7	10.182	279	17.200	193
21.335	0.8875	0.59371	337	+277	5.318	10	− 45	9.903	281	17.393	187
22.332	0.8902	0.59708	339	+126	5.308	10	− 76	9.622	285	17.580	182
23.329	0.8929	+0.60047		− 62	−5.298		− 95	+ 9.337		+17.762	

Reduktionsgrößen 1947

für 12^h Sternzeit Greenwich

Weltzeit	t	A	Δ	A′	B	Δ	B′	C	Δ	D	Δ
1947	a			in 0.00001	″		in ″0.001	″		″	
Nov. 23.329	0.8929	+0.60047	342	− 62	−5.298	10	− 95	+9.337	288	+17.762	175
24.327	0.8957	0.60389	346	−276	5.288	10	− 95	9.049	291	17.937	171
25.324	0.8984	0.60735	348	−458	5.278	9	− 73	8.758	294	18.108	165
26.321	0.9011	0.61083	351	−577	5.269	8	− 34	8.464	297	18.273	160
27.318	0.9038	0.61434	353	−593	5.261	9	+ 14	8.167	299	18.433	154
28.316	0.9066	0.61787	356	−495	5.252	8	+ 61	7.868	302	18.587	148
29.313	0.9093	+0.62143	358	−298	−5.244	7	+ 96	+7.566	305	+18.735	143
30.310	0.9120	0.62501	361	− 41	5.237	7	+110	7.261	306	18.878	136
Dez. 1.307	0.9148	0.62862	363	+224	5.230	7	+ 98	6.955	309	19.014	131
2.305	0.9175	0.63225	365	+430	5.223	6	+ 63	6.646	311	19.145	125
3.302	0.9202	0.63590	367	+539	5.217	5	+ 12	6.335	313	19.270	119
4.299	0.9230	0.63957	369	+527	5.212	5	− 40	6.022	315	19.389	113
5.297	0.9257	+0.64326	371	+410	−5.207	5	− 83	+5.707	317	+19.502	109
6.294	0.9284	0.64697	373	+219	5.202	4	−107	5.390	319	19.611	99
7.291	0.9311	0.65070	374	+ 8	5.198	3	−104	5.071	321	19.710	94
8.288	0.9339	0.65444	376	−169	5.195	3	− 80	4.750	322	19.804	89
9.286	0.9366	0.65820	378	−280	5.192	2	− 41	4.428	323	19.893	82
10.283	0.9393	0.66198	379	−306	5.190	1	+ 2	4.105	325	19.975	76
11.280	0.9421	+0.66577	380	−251	−5.189	1	+ 44	+3.780	326	+20.051	70
12.277	0.9448	0.66957	381	−135	5.188	0	+ 74	3.454	327	20.121	64
13.275	0.9475	0.67338	383	+ 9	5.188	−1	+ 89	3.127	328	20.185	56
14.272	0.9503	0.67721	384	+156	5.189	1	+ 89	2.799	329	20.241	51
15.269	0.9530	0.68105	384	+277	5.190	2	+ 73	2.470	331	20.292	45
16.267	0.9557	0.68489	385	+350	5.192	3	+ 45	2.139	331	20.337	38
17.264	0.9585	+0.68874	386	+366	−5.195	3	+ 9	+1.808	331	+20.375	32
18.261	0.9612	0.69260	387	+313	5.198	4	− 31	1.477	332	20.407	25
19.258	0.9639	0.69647	386	+193	5.202	5	− 66	1.145	332	20.432	18
20.256	0.9666	0.70033	387	+ 11	5.207	5	− 89	0.813	333	20.450	13
21.253	0.9694	0.70420	387	−200	5.212	6	− 98	0.480	333	20.463	6
22.250	0.9721	0.70807	388	−408	5.218	7	− 84	+0.147	333	20.469	0
23.247	0.9748	+0.71195	388	−568	−5.225	7	− 54	−0.186	332	+20.469	7
24.245	0.9776	0.71583	388	−635	5.232	8	− 8	0.518	333	20.462	13
25.242	0.9803	0.71971	387	−592	5.240	9	+ 42	0.851	333	20.449	20
26.239	0.9830	0.72358	387	−432	5.249	9	+ 85	1.184	332	20.429	26
27.236	0.9858	0.72745	386	−187	5.258	10	+110	1.516	332	20.403	32
28.234	0.9885	0.73131	386	+ 91	5.268	11	+109	1.848	331	20.371	39
29.231	0.9912	+0.73517	385	+343	−5.279	12	+ 82	−2.179	331	+20.332	45
30.228	0.9939	0.73902	384	+510	5.291	12	+ 36	2.510	330	20.287	52
31.226	0.9967	0.74286	383	+556	5.303	12	− 18	2.840	328	20.235	59
32.223	0.9994	+0.74669		+485	−5.315		− 69	−3.168		+20.176	

Reduktionsgrößen 1947

für 12^h Sternzeit Greenwich

Weltzeit		t	log A	log B	log C	log D	E
1947		a					s
Jan.	0.2	—0.0027	9.49679n	0.42472n	0.46538n	1.30582	—0.0025
	10.2	+0.0246	9.44262n	0.45225n	0.78873n	1.28650	25
	20.2	0.0519	9.38428n	0.48572n	0.96289n	1.25183	25
	30.1	0.0793	9.32253n	0.52127n	1.07635n	1.19910	25
Febr.	9.1	0.1066	9.25804n	0.55570n	1.15485n	1.12349	25
	19.1	0.1339	9.19106n	0.58602n	1.20943n	1.01532	—0.0025
März	1.1	0.1612	9.12084n	0.61077n	1.24564n	0.85278	25
	11.0	0.1885	9.04501n	0.62890n	1.26651n	0.56691	24
	21.0	0.2158	8.95799n	0.64008n	1.27367n	9.20412	24
	31.0	0.2431	8.84899n	0.64444n	1.26781n	0.52556n	24
April	10.0	0.2704	8.69469n	0.64286n	1.24871n	0.82918n	—0.0024
	19.9	0.2977	8.42357n	0.63629n	1.21545n	0.99691n	24
	29.9	0.3250	7.03342n	0.62655n	1.16590n	1.10741n	24
Mai	9.9	0.3523	8.43329	0.61532n	1.09594n	1.18483n	24
	19.8	0.3796	8.76395	0.60487n	0.99782n	1.23957n	24
	29.8	0.4069	8.96109	0.59704n	0.85491n	1.27699n	—0.0024
Juni	8.8	0.4342	9.10261	0.59417n	0.62118n	1.30010n	24
	18.8	0.4615	9.21219	0.59704n	0.03822n	1.31040n	23
	28.7	0.4888	9.30025	0.60617n	0.30578	1.30859n	23
Juli	8.7	0.5161	9.37225	0.62097n	0.70578	1.29464n	23
	18.7	0.5434	9.43183	0.64018n	0.90287	1.26769n	—0.0023
	28.7	0.5707	9.48127	0.66219n	1.02922	1.22593n	23
Aug.	7.6	0.5980	9.52247	0.68485n	1.11754	1.16610n	23
	17.6	0.6253	9.55687	0.70655n	1.18076	1.08200n	23
	27.6	0.6526	9.58590	0.72591n	1.22531	0.96142n	23
Sept.	6.5	0.6799	9.61072	0.74147n	1.25450	0.77466n	—0.0022
	16.5	0.7073	9.63270	0.75251n	1.27026	0.40926n	22
	26.5	0.7346	9.65297	0.75876n	1.27328	9.95999	22
Okt.	6.5	0.7619	9.67262	0.76027n	1.26352	0.64157	22
	16.4	0.7892	9.69253	0.75724n	1.24017	0.88880	22
	26.4	0.8165	9.71340	0.75051n	1.20145	1.03707	—0.0022
Nov.	5.4	0.8438	9.73554	0.74139n	1.14401	1.13758	22
	15.4	0.8711	9.75896	0.73135n	1.06168	1.20847	21
	25.3	0.8984	9.78344	0.72247n	0.94240	1.25787	21
Dez.	5.3	0.9257	9.80839	0.71659n	0.75641	1.29008	21
	15.3	0.9530	9.83318	0.71517n	0.39270	1.30732	—0.0021
	25.2	0.9803	9.85716	0.71933n	9.92993n	1.31067	21
	35.2	1.0076	9.87974	0.72900n	0.61794n	1.30025	—0.0021

Reduktionsgrößen 1947

Übertragung mittlerer Sternörter

von dem Äquinoktium t_1 auf $t_2 = 1947.0$

t_1	$m^s(t_2-t_1)$	$n^s(t_2-t_1)$	$n''(t_2-t_1)$	$\log n^s(t_2-t_1)$	$\log n''(t_2-t_1)$
	m s	s	"		
1755	+9 49.715	+256.653	+3849.79	2.409346	3.585437
1790	8 2.266	209.852	3147.78	2.321913	3.498004
1800	7 31.562	196.481	2947.21	2.293321	3.469412
1810	7 0.855	183.112	2746.68	2.262716	3.438807
1825	6 14.793	163.057	2445.86	2.212340	3.388431
1830	+5 59.439	+156.373	+2345.59	2.194162	3.370253
1835	5 44.084	149.689	2245.33	2.175189	3.351280
1840	5 28.728	143.005	2145.07	2.155351	3.331442
1845	5 13.372	136.321	2044.81	2.134562	3.310653
1850	4 58.014	129.637	1944.56	2.112730	3.288821
1855	+4 42.657	+122.953	+1844.30	2.089741	3.265832
1860	4 27.299	116.270	1744.05	2.065468	3.241559
1865	4 11.941	109.587	1643.80	2.039758	3.215849
1870	3 56.582	102.903	1543.55	2.012430	3.188521
1875	3 41.223	96.220	1443.30	1.983267	3.159358
1880	+3 25.864	+ 89.538	+1343.06	1.95201	3.128096
1885	3 10.504	82.855	1242.82	1.91832	3.094409
1890	2 55.143	76.172	1142.58	1.88180	3.057887
1895	2 39.782	69.490	1042.34	1.84192	3.018010
1900	2 24.421	62.807	942.11	1.79801	2.974101
1905	+2 9.059	+ 56.125	+ 841.87	1.74916	2.92525
1910	1 53.696	49.443	741.64	1.69410	2.87020
1915	1 38.333	42.761	641.41	1.63105	2.80714
1920	1 22.970	36.079	541.19	1.55726	2.73335
1925	1 7.606	29.398	440.96	1.46831	2.64440
1930	+0 52.242	+ 22.716	+ 340.74	1.35633	2.53242
1935	36.877	16.035	240.52	1.20506	2.38115
1940	21.512	9.353	140.30	0.97097	2.14706
1945	+ 6.146	+ 2.672	+ 40.09	0.42690	1.60299
1950	— 9.220	— 4.009	— 60.13	0.60299*n*	1.77908*n*

Sind α_1, δ_1 die Koordinaten für t_1 und α_2, δ_2 jene für $t_2 = 1947.0$, ist ferner α', δ' der genäherte Sternort für die Zeit

$$\frac{1}{2}(t_1 + t_2),$$

so ist

$$\alpha_2 = \alpha_1 + m^s(t_2-t_1) + [n^s(t_2-t_1)] \sin \alpha' \operatorname{tg} \delta'$$
$$\delta_2 = \delta_1 + [n''(t_2-t_1)] \cos \alpha'$$

Übertragung mittlerer Polsternörter

von dem Äquinoktium t_1 auf $t_2 = 1947.0$

t_1	$90° - (N)$		$(m) + (N) - 90°$		(n)
	′ ″	m s	′ ″	m s	′ ″
1755	+73 41.51	+4 54.768	+73 44.48	+4 54.965	+64 9.50
1790	60 16.08	4 1.072	60 18.06	4 1.204	52 27.61
1800	56 25.90	3 45.727	56 27.65	3 45.844	49 7.07
1810	52 35.71	3 30.381	52 37.23	3 30.482	45 46.56
1825	46 50.40	3 7.360	46 51.59	3 7.440	40 45.80
1830	+44 55.27	+2 59.685	+44 56.37	+2 59.758	+39 5.53
1835	43 0.15	2 52.010	43 1.15	2 52.077	37 25.27
1840	41 5.01	2 44.334	41 5.95	2 44.397	35 45.02
1845	39 9.88	2 36.659	39 10.72	2 36.715	34 4.77
1850	37 14.74	2 28.983	37 15.51	2 29.034	32 24.52
1855	+35 19.61	+2 21.307	+35 20.27	+2 21.351	+30 44.26
1860	33 24.45	2 13.630	33 25.07	2 13.671	29 4.01
1865	31 29.29	2 5.953	31 29.85	2 5.990	27 23.77
1870	29 34.14	1 58.276	29 34.60	1 58.311	25 43.53
1875	27 38.98	1 50.599	27 39.38	1 50.625	24 3.30
1880	+25 43.81	+1 42.921	+25 44.16	+1 42.944	+22 23.05
1885	23 48.62	1 35.241	23 48.94	1 35.263	20 42.81
1890	21 53.44	1 27.563	21 53.72	1 27.581	19 2.57
1895	19 58.25	1 19.884	19 58.49	1 19.899	17 22.33
1900	18 3.07	1 12.206	18 3.25	1 12.217	15 42.11
1905	+16 7.86	+1 4.524	+16 8.02	+1 4.535	+14 1.87
1910	14 12.66	0 56.844	14 12.79	0 56.853	12 21.64
1915	12 17.46	0 49.164	12 17.54	0 49.169	10 41.42
1920	10 22.24	0 41.483	10 22.31	0 41.487	9 1.19
1925	8 27.02	0 33.801	8 27.08	0 33.805	7 20.96
1930	+ 6 31.80	+0 26.120	+ 6 31.83	+0 26.122	+ 5 40.74
1935	4 36.57	0 18.438	4 36.58	0 18.439	4 0.53
1940	2 41.34	0 10.756	2 41.33	0 10.755	2 20.30
1945	+ 0 46.10	+0 3.073	+ 0 46.10	+0 3.073	+ 0 40.09
1950	− 1 9.15	−0 4.610	− 1 9.15	−0 4.610	− 1 0.13

Sind α_1, δ_1 die Koordinaten für t_1 und α_2, δ_2 jene für $t_2 = 1947.0$, so hat man

zur Reduktion von dem Äquinoktium t_1 auf t_2:

$$a_1 = \alpha_1 + [90° - (N)]$$

$$p_1 = \left(\operatorname{tang} \delta_1 + \cos a_1 \operatorname{tang} \tfrac{1}{2}(n)\right) \sin (n)$$

$$\operatorname{tang} \Delta a_1 = \frac{p_1 \sin a_1}{1 - p_1 \cos a_1}$$

$$\alpha_2 = a_1 + [(m) + (N) - 90°] + \Delta a_1$$

$$\operatorname{tang} \tfrac{1}{2}(\delta_2 - \delta_1) = \cos\left(a_1 + \tfrac{1}{2}\Delta a_1\right) \sec \tfrac{1}{2}\Delta a_1 \operatorname{tang} \tfrac{1}{2}(n)$$

zur Reduktion von dem Äquinoktium t_2 auf t_1:

$$a_2 = \alpha_2 - [(m) + (N) - 90°]$$

$$p_2 = -\left(\operatorname{tang} \delta_2 - \cos a_2 \operatorname{tang} \tfrac{1}{2}(n)\right) \sin (n)$$

$$\operatorname{tang} \Delta a_2 = \frac{p_2 \sin a_2}{1 - p_2 \cos a_2}$$

$$\alpha_1 = a_2 - [90° - (N)] + \Delta a_2$$

$$\operatorname{tang} \tfrac{1}{2}(\delta_1 - \delta_2) = -\cos\left(a_2 + \tfrac{1}{2}\Delta a_2\right) \sec \tfrac{1}{2}\Delta a_2 \operatorname{tang} \tfrac{1}{2}(n)$$

Reduktion von Koordinatendifferenzen scheinbarer Örter auf Differenzen mittlerer Örter für den Jahresanfang.

Sind $\Delta\alpha$ und $\Delta\delta$ die gemessenen Koordinatendifferenzen der scheinbaren Örter im Sinne Objekt minus Stern, $d\Delta\alpha$ und $d\Delta\delta$ die an ihnen anzubringenden Korrektionen, um Koordinatendifferenzen zu erhalten, die sich auf das mittlere Äquinoktium des Jahresanfangs beziehen, so wird

$$d\Delta\alpha = (d\Delta\alpha)_1 + (d\Delta\alpha)_2$$
$$d\Delta\delta = (d\Delta\delta)_1 + (d\Delta\delta)_2,$$

wobei

$$(d\Delta\alpha)_1 = -j\cos(G+\alpha)\,\frac{\operatorname{tg}\delta}{15}\,\Delta\alpha^{\mathrm{m}} - j\sin(G+\alpha)\,\frac{\sec^2\delta}{225}\,\Delta\delta'$$
$$(d\Delta\alpha)_2 = -k\cos(H+\alpha)\,\frac{\sec\delta}{15}\,\Delta\alpha^{\mathrm{m}} - k\sin(H+\alpha)\,\frac{\operatorname{tg}\delta\sec\delta}{225}\,\Delta\delta'$$
$$(d\Delta\delta)_1 = j\sin(G+\alpha)\,\Delta\alpha^{\mathrm{m}}$$
$$(d\Delta\delta)_2 = k\sin(H+\alpha)\sin\delta\,\Delta\alpha^{\mathrm{m}} - k\cos(H+\alpha)\,\frac{\cos\delta}{15}\,\Delta\delta'$$
$$+ [0.0003\, i\sin\delta\,\Delta\delta']$$

Hierin bezeichnen $(d\Delta\alpha)_1$ und $(d\Delta\delta)_1$ den Einfluß der Präzession und Nutation, $(d\Delta\alpha)_2$ und $(d\Delta\delta)_2$ den Einfluß der Aberration.

Die Größen G, H, j, k, i sind auf S. 252* — 269* zu finden. Die Faktoren $\frac{1}{15}\operatorname{tg}\delta$, $\frac{1}{225}\sec^2\delta$, $\frac{1}{15}\sec\delta$, $\frac{1}{225}\operatorname{tg}\delta\sec\delta$, $\sin\delta$, $\frac{1}{15}\cos\delta$ entnehme man der Zusammenstellung auf S. 283*. Die numerischen Werte der Funktionen sinus und cosinus sind auf S. 284* enthalten. $\Delta\alpha^{\mathrm{m}}$ bedeutet die in Zeitminuten ausgedrückte gemessene Rektaszensionsdifferenz, $\Delta\delta'$ ist die in Bogenminuten ausgedrückte gemessene Deklinationsdifferenz. Die Größen $d\Delta\alpha$ und $d\Delta\delta$ ergeben sich in Zeit- bzw. Bogensekunden. Das in eckige Klammern gesetzte Glied $0.0003\, i\sin\delta\,\Delta\delta'$ in der Formel für $(d\Delta\delta)_2$ beträgt für $\Delta\delta' = 10'$ im Maximum $0\overset{''}{.}02$ und kann daher in den meisten Fällen unberücksichtigt bleiben.

δ	$\frac{1}{15}$ tg δ	$\frac{1}{225}$ sec² δ	$\frac{1}{15}$ sec δ	$\frac{1}{225}$ tg δ sec δ	sin δ	$\frac{1}{15}$ cos δ	tg δ	$\frac{1}{15}$ sec² δ	δ
0°	0.000	0.004	0.067	0.000	0.00	0.07	0.00	0.07	0°
5	0.006	0.004	0.067	0.000	0.09	0.07	0.09	0.07	5
10	0.012	0.005	0.068	0.001	0.17	0.07	0.18	0.07	10
15	0.018	0.005	0.069	0.001	0.26	0.06	0.27	0.07	15
20	0.024	0.005	0.071	0.002	0.34	0.06	0.36	0.08	20
25	0.031	0.005	0.074	0.002	0.42	0.06	0.47	0.08	25
30	0.038	0.006	0.077	0.003	0.50	0.06	0.58	0.09	30
35	0.047	0.007	0.081	0.004	0.57	0.05	0.70	0.10	35
40	0.056	0.008	0.087	0.005	0.64	0.05	0.84	0.11	40
40	0.056	0.008	0.087	0.005	0.64	0.05	0.84	0.11	40
42	0.060	0.008	0.090	0.005	0.67	0.05	0.90	0.12	42
44	0.064	0.009	0.093	0.006	0.69	0.05	0.97	0.13	44
46	0.069	0.009	0.096	0.007	0.72	0.05	1.04	0.14	46
48	0.074	0.010	0.100	0.007	0.74	0.04	1.11	0.15	48
50	0.079	0.011	0.104	0.008	0.77	0.04	1.19	0.16	50
52	0.085	0.012	0.108	0.009	0.79	0.04	1.28	0.18	52
54	0.092	0.013	0.113	0.010	0.81	0.04	1.38	0.19	54
56	0.099	0.014	0.119	0.012	0.83	0.04	1.48	0.21	56
58	0.107	0.016	0.126	0.013	0.85	0.04	1.60	0.24	58
60	0.115	0.018	0.133	0.015	0.87	0.03	1.73	0.27	60
60	0.115	0.018	0.133	0.015	0.87	0.03	1.73	0.27	60
61	0.120	0.019	0.138	0.017	0.87	0.03	1.80	0.28	61
62	0.125	0.020	0.142	0.018	0.88	0.03	1.88	0.30	62
63	0.131	0.022	0.147	0.019	0.89	0.03	1.96	0.32	63
64	0.137	0.023	0.152	0.021	0.90	0.03	2.05	0.35	64
65	0.143	0.025	0.158	0.023	0.91	0.03	2.14	0.37	65
66	0.150	0.027	0.164	0.025	0.91	0.03	2.25	0.40	66
67	0.157	0.029	0.171	0.027	0.92	0.03	2.36	0.44	67
68	0.165	0.032	0.178	0.029	0.93	0.02	2.48	0.48	68
69	0.174	0.035	0.186	0.032	0.93	0.02	2.61	0.52	69
70	0.183	0.038	0.195	0.036	0.94	0.02	2.75	0.57	70
71	0.194	0.042	0.205	0.040	0.95	0.02	2.90	0.63	71
72	0.205	0.047	0.216	0.044	0.95	0.02	3.08	0.70	72
73	0.218	0.052	0.228	0.050	0.96	0.02	3.27	0.78	73
74	0.232	0.058	0.242	0.056	0.96	0.02	3.49	0.88	74
75	0.249	0.066	0.258	0.064	0.97	0.02	3.73	1.00	75
75.0°	0.249	0.066	0.258	0.064	0.97	0.02	3.73	1.00	75.0°
75.5	0.258	0.071	0.266	0.069	0.97	0.02	3.87	1.06	75.5
76.0	0.267	0.076	0.276	0.074	0.97	0.02	4.01	1.14	76.0
76.5	0.278	0.082	0.286	0.079	0.97	0.02	4.17	1.22	76.5
77.0	0.289	0.088	0.296	0.086	0.97	0.01	4.33	1.32	77.0
77.5	0.301	0.095	0.308	0.093	0.98	0.01	4.51	1.42	77.5
78.0	0.314	0.103	0.321	0.101	0.98	0.01	4.70	1.54	78.0
78.5	0.328	0.112	0.334	0.110	0.98	0.01	4.92	1.68	78.5
79.0	0.343	0.122	0.349	0.120	0.98	0.01	5.14	1.83	79.0
79.5	0.360	0.134	0.366	0.132	0.98	0.01	5.40	2.01	79.5
80.0	0.378	0.147	0.384	0.145	0.98	0.01	5.67	2.21	80.0

Sinus

	0^h	1^h	2^h	3^h	4^h	5^h	
0^m	0.000	0.259	0.500	0.707	0.866	0.966	60
1	0.004	0.263	0.504	0.710	0.868	0.967	59
2	0.009	0.267	0.508	0.713	0.870	0.968	58
3	0.013	0.271	0.511	0.716	0.872	0.969	57
4	0.017	0.276	0.515	0.719	0.875	0.970	56
5	0.022	0.280	0.519	0.722	0.877	0.971	55
6	0.026	0.284	0.522	0.725	0.879	0.972	54
7	0.031	0.288	0.526	0.728	0.881	0.973	53
8	0.035	0.292	0.530	0.731	0.883	0.974	52
9	0.039	0.297	0.534	0.734	0.885	0.975	51
10	0.044	0.301	0.537	0.737	0.887	0.976	50
11	0.048	0.305	0.541	0.740	0.889	0.977	49
12	0.052	0.309	0.545	0.743	0.891	0.978	48
13	0.057	0.313	0.548	0.746	0.893	0.979	47
14	0.061	0.317	0.552	0.749	0.895	0.980	46
15	0.065	0.321	0.556	0.752	0.897	0.981	45
16	0.070	0.326	0.559	0.755	0.899	0.982	44
17	0.074	0.330	0.563	0.758	0.901	0.982	43
18	0.078	0.334	0.566	0.760	0.903	0.983	42
19	0.083	0.338	0.570	0.763	0.904	0.984	41
20	0.087	0.342	0.574	0.766	0.906	0.985	40
21	0.092	0.346	0.577	0.769	0.908	0.986	39
22	0.096	0.350	0.581	0.772	0.910	0.986	38
23	0.100	0.354	0.584	0.774	0.912	0.987	37
24	0.105	0.358	0.588	0.777	0.914	0.988	36
25	0.109	0.362	0.591	0.780	0.915	0.988	35
26	0.113	0.367	0.595	0.783	0.917	0.989	34
27	0.118	0.371	0.598	0.785	0.919	0.990	33
28	0.122	0.375	0.602	0.788	0.921	0.990	32
29	0.126	0.379	0.605	0.791	0.922	0.991	31
30	0.131	0.383	0.609	0.793	0.924	0.991	30
31	0.135	0.387	0.612	0.796	0.926	0.992	29
32	0.139	0.391	0.616	0.799	0.927	0.993	28
33	0.143	0.395	0.619	0.801	0.929	0.993	27
34	0.148	0.399	0.623	0.804	0.930	0.994	26
35	0.152	0.403	0.626	0.806	0.932	0.994	25
36	0.156	0.407	0.629	0.809	0.934	0.995	24
37	0.161	0.411	0.633	0.812	0.935	0.995	23
38	0.165	0.415	0.636	0.814	0.937	0.995	22
39	0.169	0.419	0.639	0.817	0.938	0.996	21
40	0.174	0.423	0.643	0.819	0.940	0.996	20
41	0.178	0.427	0.646	0.822	0.941	0.997	19
42	0.182	0.431	0.649	0.824	0.943	0.997	18
43	0.187	0.434	0.653	0.827	0.944	0.997	17
44	0.191	0.438	0.656	0.829	0.946	0.998	16
45	0.195	0.442	0.659	0.831	0.947	0.998	15
46	0.199	0.446	0.663	0.834	0.948	0.998	14
47	0.204	0.450	0.666	0.836	0.950	0.998	13
48	0.208	0.454	0.669	0.839	0.951	0.999	12
49	0.212	0.458	0.672	0.841	0.952	0.999	11
50	0.216	0.462	0.676	0.843	0.954	0.999	10
51	0.221	0.466	0.679	0.846	0.955	0.999	9
52	0.225	0.469	0.682	0.848	0.956	0.999	8
53	0.229	0.473	0.685	0.850	0.958	1.000	7
54	0.233	0.477	0.688	0.853	0.959	1.000	6
55	0.238	0.481	0.692	0.855	0.960	1.000	5
56	0.242	0.485	0.695	0.857	0.961	1.000	4
57	0.246	0.489	0.698	0.859	0.962	1.000	3
58	0.250	0.492	0.701	0.862	0.964	1.000	2
59	0.255	0.496	0.704	0.864	0.965	1.000	1
60	0.259	0.500	0.707	0.866	0.966	1.000	0^m
	5^h	4^h	3^h	2^h	1^h	0^h	

Cosinus

Übertragung von Rektaszensions- und Deklinationsdifferenzen vom mittleren Äquinoktium 1947.0 auf das Normaläquinoktium 1950.0

α	a_1	a_2	d_1	α	α	a_1	a_2	d_1	α
h m				h m	h m				h m
0 0	+0.0175+	+0.0000−	−0.000+	24 0	6 0	−0.0000−	+0.0175−	−0.262+	18 0
10	0175	0008	011	50	10	0008	0175	262	50
20	0174	0015	023	40	20	0015	0174	261	40
30	0173	0023	034	30	30	0023	0173	260	30
40	0172	0030	046	20	40	0030	0172	258	20
50	0171	0038	057	10	50	0038	0171	256	10
1 0	+0.0169+	+0.0045−	−0.068+	23 0	7 0	−0.0045−	+0.0169−	−0.253+	17 0
10	0167	0053	079	50	10	0053	0167	250	50
20	0164	0060	090	40	20	0060	0164	246	40
30	0162	0067	100	30	30	0067	0162	242	30
40	0159	0074	111	20	40	0074	0159	238	20
50	0155	0081	121	10	50	0081	0155	233	10
2 0	+0.0151+	+0.0087−	−0.131+	22 0	8 0	−0.0087−	+0.0151−	−0.227+	16 0
10	0147	0094	141	50	10	0094	0147	221	50
20	0143	0100	150	40	20	0100	0143	215	40
30	0139	0106	160	30	30	0106	0139	208	30
40	0134	0112	169	20	40	0112	0134	201	20
50	0129	0118	177	10	50	0118	0129	193	10
3 0	+0.0124+	+0.0124−	−0.185+	21 0	9 0	−0.0124−	+0.0124−	−0.185+	15 0
10	0118	0129	193	50	10	0129	0118	177	50
20	0112	0134	201	40	20	0134	0112	169	40
30	0106	0139	208	30	30	0139	0106	160	30
40	0100	0143	215	20	40	0143	0100	150	20
50	0094	0147	221	10	50	0147	0094	141	10
4 0	+0.0087+	+0.0151−	−0.227+	20 0	10 0	−0.0151−	+0.0087−	−0.131+	14 0
10	0081	0155	233	50	10	0155	0081	121	50
20	0074	0159	238	40	20	0159	0074	111	40
30	0067	0162	242	30	30	0162	0067	100	30
40	0060	0164	246	20	40	0164	0060	090	20
50	0053	0167	250	10	50	0167	0053	079	10
5 0	+0.0045+	+0.0169−	−0.253+	19 0	11 0	−0.0169−	+0.0045−	−0.068+	13 0
10	0038	0171	256	50	10	0171	0038	057	50
20	0030	0172	258	40	20	0172	0030	046	40
30	0023	0173	260	30	30	0173	0023	034	30
40	0015	0174	261	20	40	0174	0015	023	20
50	0008	0175	262	10	50	0175	0008	011	10
6 0	+0.0000+	+0.0175−	−0.262+	18 0	12 0	−0.0175−	+0.0000−	−0.000+	12 0

Für α zwischen 12^h und 24^h gelten die Vorzeichen zur Rechten.

$$\Delta\alpha_{1950.0} = \Delta\alpha_{1947.0} + a_1 \cdot \operatorname{tg}\delta \cdot \Delta\alpha^m + a_2 \cdot \tfrac{1}{15}\sec^2\delta \cdot \Delta\delta'$$

$$\Delta\delta_{1950.0} = \Delta\delta_{1947.0} + d_1 \cdot \Delta\alpha^m$$

$\Delta\alpha^m$ bedeutet die Rektaszensionsdifferenz in Zeitminuten, $\Delta\delta'$ ist die Deklinationsdifferenz in Bogenminuten.

Die Werte von $\operatorname{tg}\delta$ und $\frac{1}{15}\sec^2\delta$ sind auf S. 283* enthalten.

Reduktionsgrößen 1947

Reduktion vom mittleren Äquinoktium 1950.0 auf das jedesmalige wahre Äquinoktium

0^h Weltzeit	f	log g	G	0^h Weltzeit	f	log g	G
1947	s		h m s	1947	s		h m s
Jan. 0	—10.189	1.82276	12 9 9	Juni 29	—8.606	1.75014	12 16 29
5	10.132	1.82033	12 9 29	Juli 4	8.550	1.74736	12 16 51
10	10.076	1.81794	12 9 52	9	8.495	1.74462	12 17 17
15	10.021	1.81561	12 10 18	14	8.441	1.74193	12 17 46
20	9.968	1.81337	12 10 46	19	8.388	1.73929	12 18 18
25	— 9.918	1.81119	12 11 16	24	—8.337	1.73671	12 18 52
30	9.869	1.80912	12 11 48	29	8.288	1.73425	12 19 29
Febr. 4	9.823	1.80714	12 12 21	Aug. 3	8.240	1.73186	12 20 6
9	9.780	1.80527	12 12 54	8	8.195	1.72959	12 20 45
14	9.739	1.80350	12 13 26	13	8.152	1.72739	12 21 24
19	— 9.700	1.80184	12 13 57	18	—8.111	1.72533	12 22 2
24	9.663	1.80024	12 14 26	23	8.072	1.72333	12 22 39
März 1	9.628	1.79873	12 14 53	28	8.034	1.72144	12 23 14
6	9.595	1.79728	12 15 17	Sept. 2	7.999	1.71960	12 23 47
11	9.563	1.79586	12 15 37	7	7.965	1.71785	12 24 17
16	— 9.532	1.79447	12 15 54	12	—7.932	1.71615	12 24 43
21	9.501	1.79310	12 16 8	17	7.900	1.71446	12 25 5
26	9.470	1.79171	12 16 17	22	7.868	1.71278	12 25 24
31	9.439	1.79028	12 16 24	27	7.836	1.71108	12 25 38
April 5	9.407	1.78882	12 16 27	Okt. 2	7.805	1.70934	12 25 49
10	— 9.374	1.78728	12 16 27	7	—7.772	1.70757	12 25 55
15	9.339	1.78568	12 16 24	12	7.739	1.70570	12 25 58
20	9.303	1.78397	12 16 19	17	7.704	1.70373	12 25 57
25	9.265	1.78218	12 16 13	22	7.667	1.70165	12 25 54
30	9.225	1.78027	12 16 6	27	7.629	1.69944	12 25 48
Mai 5	— 9.182	1.77824	12 15 58	Nov. 1	—7.588	1.69709	12 25 41
10	9.137	1.77613	12 15 50	6	7.545	1.69458	12 25 33
15	9.091	1.77387	12 15 43	11	7.499	1.69192	12 25 24
20	9.042	1.77152	12 15 37	16	7.451	1.68910	12 25 16
25	8.991	1.76908	12 15 33	21	7.401	1.68613	12 25 10
30	— 8.939	1.76653	12 15 31	26	—7.348	1.68300	12 25 7
Juni 4	8.885	1.76391	12 15 32	Dez. 1	7.293	1.67978	12 25 7
9	8.831	1.76124	12 15 37	6	7.237	1.67642	12 25 10
14	8.775	1.75850	12 15 44	11	7.179	1.67296	12 25 18
19	8.718	1.75573	12 15 55	16	7.120	1.66944	12 25 31
24	— 8.662	1.75294	12 16 10	21	—7.061	1.66585	12 25 49
29	8.606	1.75014	12 16 29	26	7.001	1.66225	12 26 13
Juli 4	— 8.550	1.74736	12 16 51	31	—6.941	1.65864	12 26 43

Die mit den vorstehend gegebenen Größen f, log g und G berechnete Reduktion vom mittleren Äquinoktium 1950.0 auf das wahre Äquinoktium der Epoche bedarf noch einer Verbesserung, die von dem Einfluß der Variatio saecularis herrührt und auf Seite 287* enthalten ist.

Es wird somit: Red. in $\alpha = f + \frac{1}{15} g \sin(G + \alpha) \operatorname{tg} \delta$ + Korr. nach S. 287*

Red. in $\delta = g \cos(G + \alpha)$ + Korr. nach S. 287*

Korrektion der Reduktion vom mittleren Äquinoktium 1950.0 auf das jedesmalige wahre Äquinoktium (s. S. 286*), berechnet für 1947.0, mit Hinzufügung ihrer einjährigen Änderung.

α	δ															
	+60°		+50°		+30°		+10°		−10°		−30°		−50°		−60°	
Für Rektaszension (in $0^s.001$)																
0h	+2	−2	+2	−1	+1	−1	0	0	0	0	−1	0	−2	+1	−2	+1
1	+3	−2	+2	−1	+1	−1	0	0	0	0	0	0	−1	+1	−1	+1
2	+4	−3	+2	−2	+1	−1	+1	0	0	0	0	0	0	0	0	0
3	+4	−2	+2	−2	+1	−1	+1	0	0	0	0	0	0	0	+1	0
4	+3	−2	+2	−1	+1	−1	0	0	0	0	0	0	0	0	+1	0
5	+2	−1	+1	−1	+1	0	0	0	0	0	0	0	0	0	+1	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	−2	+1	−1	+1	0	0	0	0	0	0	0	0	0	0	0	0
8	−3	+2	−2	+1	−1	0	0	0	0	0	0	0	0	0	0	0
9	−4	+2	−2	+1	−1	+1	0	0	0	0	0	0	0	0	0	0
10	−4	+2	−2	+2	−1	+1	0	0	0	0	0	0	+1	0	0	0
11	−3	+2	−2	+1	−1	+1	0	0	0	0	+1	0	+1	−1	+1	−1
12	−2	+1	−2	+1	−1	0	0	0	0	0	+1	−1	+2	−1	+2	−2
13	−1	+1	−1	+1	0	0	0	0	0	0	+1	−1	+2	−1	+3	−2
14	0	0	0	0	0	0	0	0	+1	0	+1	−1	+2	−2	+4	−3
15	+1	0	0	0	0	0	0	0	+1	0	+1	−1	+2	−2	+4	−2
16	+1	0	0	0	0	0	0	0	0	0	+1	−1	+2	−1	+3	−2
17	+1	0	0	0	0	0	0	0	0	0	+1	0	+1	−1	+2	−1
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	−1	+1	−2	+1
20	0	0	0	0	0	0	0	0	0	0	−1	0	−2	+1	−3	+2
21	0	0	0	0	0	0	0	0	0	0	−1	+1	−2	+1	−4	+2
22	0	0	0	0	0	0	0	0	0	0	−1	+1	−2	+2	−4	+2
23	+1	−1	+1	−1	+1	0	0	0	0	0	−1	+1	−2	+1	−3	+2
24	+2	−2	+2	−1	+1	−1	0	0	0	0	−1	0	−2	+1	−2	+1
Für Deklination (in $0''.01$)																
0h	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	−1	0	−1	0	−1	0	−1	0	−1	0	−1	0	0	0	0	0
2	−1	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1	0
3	−2	+1	−2	+1	−2	+1	−2	+1	−1	+1	−1	+1	−1	+1	−1	0
4	−3	+2	−3	+2	−2	+1	−2	+1	−2	+1	−1	+1	−1	+1	−1	0
5	−3	+2	−3	+2	−2	+2	−2	+1	−2	+1	−1	+1	−1	+1	−1	0
6	−4	+2	−3	+2	−3	+2	−2	+1	−2	+1	−2	+1	−1	+1	0	0
7	−3	+2	−3	+2	−2	+2	−2	+1	−2	+1	−1	+1	−1	+1	−1	0
8	−3	+2	−3	+2	−2	+1	−2	+1	−2	+1	−1	+1	−1	+1	−1	0
9	−2	+1	−2	+1	−2	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1	0
10	−1	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1	0	−1	0
11	−1	0	−1	0	−1	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	+1	0	+1	0	+1	0	+1	0	+1	0	+1	0
14	+1	0	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1
15	+1	0	+1	−1	+1	−1	+1	−1	+2	−1	+2	−1	+2	−1	+2	−1
16	+1	0	+1	−1	+1	−1	+2	−1	+2	−1	+2	−1	+3	−2	+3	−2
17	+1	0	+1	−1	+1	−1	+2	−1	+2	−1	+2	−2	+3	−2	+3	−2
18	0	0	+1	−1	+2	−1	+2	−1	+2	−1	+3	−2	+3	−2	+4	−2
19	+1	0	+1	−1	+1	−1	+2	−1	+2	−1	+2	−2	+3	−2	+3	−2
20	+1	0	+1	−1	+1	−1	+2	−1	+2	−1	+2	−1	+3	−2	+3	−2
21	+1	0	+1	−1	+1	−1	+1	−1	+1	−1	+2	−1	+2	−1	+2	−1
22	+1	0	+1	0	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1	+1	−1
23	0	0	0	0	0	0	0	0	0	0	+1	0	+1	0	+1	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Übertragung von Sternörtern vom mittleren

α	0^h, 12^h		1^h, 13^h		2^h, 14^h		3^h, 15^h		4^h, 16^h		5^h, 17^h		α
m	+ A —	+ D —	+ A —	+ D —	+ A —	+ D —	+ A —	+ D —	+ A —	+ D —	+ A —	+ D —	m
	s	″	s	″	s	″	s	″	s	″	s	″	
0	0.001	60.13	1.039	58.07	2.005	52.06	2.835	42.50	3.472	30.05	3.872	15.54	0
1	0.018	60.13	1.056	58.00	2.020	51.93	2.848	42.32	3.481	29.82	3.877	15.29	1
2	0.036	60.13	1.073	57.93	2.035	51.80	2.860	42.13	3.490	29.60	3.881	15.04	2
3	0.053	60.12	1.090	57.86	2.050	51.66	2.872	41.94	3.498	29.37	3.886	14.79	3
4	0.071	60.12	1.107	57.79	2.065	51.53	2.885	41.76	3.507	29.14	3.890	14.53	4
5	0.088	60.11	1.123	57.72	2.080	51.39	2.897	41.57	3.515	28.91	3.894	14.28	5
6	0.106	60.11	1.140	57.65	2.095	51.26	2.909	41.38	3.524	28.68	3.899	14.02	6
7	0.123	60.10	1.157	57.57	2.110	51.12	2.921	41.19	3.532	28.45	3.903	13.77	7
8	0.141	60.09	1.174	57.49	2.125	50.98	2.933	41.00	3.540	28.22	3.906	13.51	8
9	0.158	60.08	1.190	57.42	2.140	50.84	2.944	40.80	3.548	27.98	3.910	13.25	9
10	0.176	60.07	1.207	57.34	2.155	50.70	2.956	40.61	3.556	27.75	3.914	12.99	10
11	0.193	60.06	1.224	57.26	2.170	50.56	2.968	40.42	3.564	27.52	3.918	12.74	11
12	0.211	60.04	1.240	57.18	2.185	50.42	2.980	40.22	3.572	27.29	3.922	12.48	12
13	0.228	60.03	1.257	57.10	2.200	50.27	2.992	40.03	3.581	27.05	3.925	12.23	13
14	0.246	60.02	1.273	57.02	2.214	50.13	3.004	39.84	3.589	26.82	3.929	11.98	14
15	0.263	60.00	1.290	56.93	2.229	49.98	3.015	39.64	3.596	26.58	3.932	11.72	15
16	0.281	59.98	1.306	56.85	2.243	49.84	3.027	39.44	3.604	26.35	3.936	11.46	16
17	0.298	59.96	1.323	56.76	2.258	49.69	3.038	39.24	3.612	26.11	3.939	11.20	17
18	0.316	59.94	1.339	56.68	2.272	49.54	3.050	39.04	3.619	25.87	3.942	10.94	18
19	0.333	59.92	1.356	56.59	2.286	49.39	3.061	38.84	3.627	25.63	3.945	10.68	19
20	0.351	59.90	1.372	56.50	2.300	49.24	3.072	38.64	3.634	25.39	3.948	10.42	20
21	0.369	59.88	1.388	56.41	2.315	49.09	3.083	38.44	3.641	25.15	3.951	10.16	21
22	0.386	59.85	1.405	56.32	2.329	48.94	3.095	38.24	3.649	24.92	3.954	9.90	22
23	0.404	59.82	1.421	56.22	2.343	48.79	3.106	38.04	3.656	24.68	3.957	9.65	23
24	0.421	59.80	1.438	56.13	2.358	48.63	3.117	37.83	3.663	24.44	3.960	9.39	24
25	0.438	59.77	1.454	56.03	2.372	48.48	3.128	37.63	3.670	24.20	3.962	9.13	25
26	0.456	59.74	1.470	55.94	2.386	48.32	3.139	37.42	3.677	23.96	3.965	8.87	26
27	0.473	59.71	1.486	55.84	2.400	48.17	3.149	37.22	3.684	23.72	3.967	8.61	27
28	0.490	59.68	1.503	55.74	2.414	48.01	3.160	37.01	3.691	23.48	3.970	8.35	28
29	0.508	59.64	1.519	55.64	2.427	47.85	3.171	36.80	3.697	23.23	3.972	8.09	29
30	0.525	59.61	1.535	55.54	2.441	47.69	3.181	36.59	3.704	22.99	3.974	7.83	30
31	0.542	59.57	1.551	55.44	2.455	47.53	3.192	36.38	3.711	22.75	3.976	7.57	31
32	0.560	59.54	1.567	55.34	2.469	47.37	3.202	36.17	3.717	22.51	3.979	7.31	32
33	0.577	59.50	1.583	55.24	2.483	47.21	3.213	35.97	3.724	22.27	3.981	7.05	33
34	0.594	59.46	1.599	55.13	2.497	47.05	3.224	35.76	3.731	22.03	3.983	6.79	34
35	0.611	59.42	1.615	55.03	2.511	46.88	3.234	35.54	3.737	21.78	3.985	6.53	35
36	0.629	59.38	1.631	54.92	2.525	46.72	3.244	35.33	3.743	21.54	3.987	6.27	36
37	0.646	59.34	1.647	54.82	2.538	46.55	3.254	35.12	3.749	21.29	3.988	6.00	37
38	0.663	59.30	1.663	54.71	2.551	46.39	3.264	34.90	3.755	21.05	3.990	5.74	38
39	0.680	59.25	1.679	54.60	2.565	46.22	3.274	34.69	3.761	20.80	3.992	5.48	39
40	0.697	59.21	1.695	54.49	2.578	46.05	3.284	34.47	3.767	20.55	3.993	5.22	40
41	0.714	59.16	1.711	54.38	2.592	45.88	3.294	34.26	3.773	20.31	3.995	4.96	41
42	0.732	59.12	1.727	54.26	2.605	45.71	3.304	34.04	3.779	20.06	3.996	4.70	42
43	0.749	59.07	1.743	54.14	2.618	45.54	3.315	33.83	3.785	19.81	3.998	4.43	43
44	0.766	59.02	1.759	54.03	2.632	45.37	3.325	33.61	3.791	19.57	3.999	4.17	44
45	0.783	58.97	1.774	53.91	2.645	45.20	3.334	33.39	3.797	19.32	4.000	3.91	45
46	0.801	58.92	1.790	53.79	2.658	45.03	3.344	33.18	3.803	19.07	4.002	3.65	46
47	0.818	58.86	1.805	53.68	2.671	44.85	3.354	32.96	3.808	18.82	4.003	3.38	47
48	0.835	58.81	1.821	53.56	2.684	44.67	3.363	32.73	3.813	18.57	4.003	3.12	48
49	0.852	58.76	1.836	53.44	2.696	44.50	3.373	32.51	3.819	18.31	4.004	2.86	49
50	0.869	58.70	1.852	53.32	2.709	44.32	3.382	32.29	3.824	18.06	4.005	2.60	50
51	0.886	58.64	1.867	53.20	2.722	44.14	3.391	32.07	3.829	17.81	4.006	2.34	51
52	0.903	58.58	1.883	53.08	2.735	43.96	3.401	31.85	3.834	17.56	4.007	2.08	52
53	0.920	58.52	1.898	52.95	2.748	43.79	3.410	31.63	3.840	17.32	4.007	1.82	53
54	0.937	58.46	1.914	52.83	2.761	43.61	3.419	31.41	3.845	17.07	4.008	1.55	54
55	0.954	58.40	1.929	52.70	2.773	43.42	3.428	31.18	3.849	16.81	4.008	1.29	55
56	0.971	58.34	1.944	52.58	2.786	43.24	3.437	30.96	3.854	16.56	4.009	1.03	56
57	0.988	58.27	1.959	52.45	2.798	43.06	3.446	30.73	3.859	16.31	4.009	0.77	57
58	1.005	58.20	1.975	52.32	2.811	42.87	3.455	30.51	3.863	16.05	4.009	0.50	58
59	1.022	58.14	1.990	52.19	2.823	42.69	3.463	30.28	3.868	15.80	4.009	0.24	59
60	1.039	58.07	2.005	52.06	2.835	42.50	3.472	30.05	3.872	15.54	4.009		60

α	6h, 18h		7h, 19h		8h, 20h		9h, 21h		10h, 22h		11h, 23h		α
m	+ A −	− D +	+ A −	− D +	+ A −	− D +	+ A −	− D +	+ A −	− D +	+ A −	− D +	m
	s	"	s	"	s	"	s	"	s	"	s	"	
0	4.009	0.02	3.872	15.58	3.471	30.08	2.834	42.53	2.003	52.08	1.036	58.09	0
1	4.009	0.28	3.868	15.84	3.462	30.31	2.822	42.72	1.988	52.21	1.019	58.16	1
2	4.009	0.55	3.863	16.09	3.454	30.54	2.809	42.90	1.973	52.34	1.002	58.22	2
3	4.009	0.81	3.858	16.35	3.445	30.76	2.797	43.09	1.958	52.47	0.985	58.29	3
4	4.009	1.07	3.854	16.60	3.436	30.99	2.785	43.27	1.943	52.60	0.968	58.35	4
5	4.008	1.33	3.849	16.85	3.427	31.21	2.772	43.45	1.928	52.72	0.951	58.41	5
6	4.008	1.60	3.844	17.11	3.418	31.44	2.759	43.64	1.913	52.85	0.934	58.48	6
7	4.007	1.86	3.839	17.36	3.408	31.66	2.746	43.82	1.897	52.97	0.917	58.54	7
8	4.007	2.12	3.834	17.60	3.399	31.88	2.733	44.00	1.881	53.10	0.900	58.59	8
9	4.006	2.38	3.828	17.85	3.390	32.10	2.720	44.17	1.866	53.22	0.883	58.65	9
10	4.005	2.64	3.823	18.10	3.380	32.32	2.707	44.35	1.850	53.34	0.866	58.71	10
11	4.004	2.90	3.818	18.35	3.371	32.54	2.694	44.53	1.835	53.46	0.849	58.77	11
12	4.003	3.17	3.812	18.60	3.361	32.77	2.681	44.70	1.819	53.58	0.832	58.82	12
13	4.003	3.43	3.807	18.86	3.352	32.99	2.668	44.88	1.804	53.70	0.815	58.87	13
14	4.002	3.69	3.802	19.11	3.343	33.21	2.655	45.05	1.789	53.82	0.798	58.93	14
15	4.000	3.95	3.796	19.35	3.333	33.43	2.642	45.22	1.773	53.93	0.781	58.98	15
16	3.999	4.21	3.790	19.60	3.323	33.65	2.629	45.40	1.757	54.05	0.764	59.03	16
17	3.998	4.48	3.784	19.85	3.313	33.86	2.615	45.57	1.741	54.16	0.746	59.08	17
18	3.996	4.74	3.778	20.09	3.303	34.08	2.602	45.73	1.725	54.28	0.729	59.13	18
19	3.995	5.00	3.772	20.34	3.293	34.30	2.589	45.90	1.709	54.39	0.712	59.17	19
20	3.993	5.26	3.766	20.58	3.283	34.51	2.576	46.07	1.693	54.50	0.695	59.22	20
21	3.992	5.52	3.760	20.83	3.273	34.73	2.563	46.24	1.677	54.61	0.678	59.26	21
22	3.990	5.78	3.754	21.08	3.263	34.94	2.549	46.41	1.661	54.72	0.661	59.31	22
23	3.988	6.05	3.748	21.33	3.253	35.15	2.536	46.58	1.645	54.83	0.643	59.35	23
24	3.987	6.31	3.742	21.57	3.243	35.37	2.523	46.74	1.629	54.94	0.626	59.39	24
25	3.985	6.57	3.736	21.82	3.232	35.58	2.509	46.91	1.613	55.04	0.609	59.43	25
26	3.983	6.83	3.730	22.06	3.222	35.79	2.495	47.07	1.597	55.15	0.592	59.47	26
27	3.981	7.09	3.723	22.31	3.211	36.00	2.481	47.24	1.581	55.25	0.574	59.51	27
28	3.979	7.35	3.716	22.55	3.201	36.21	2.467	47.40	1.565	55.36	0.557	59.55	28
29	3.976	7.61	3.710	22.79	3.190	36.41	2.453	47.56	1.549	55.46	0.539	59.58	29
30	3.974	7.87	3.703	23.03	3.179	36.62	2.439	47.72	1.533	55.56	0.522	59.62	30
31	3.972	8.13	3.696	23.27	3.169	36.83	2.425	47.88	1.517	55.66	0.505	59.65	31
32	3.969	8.39	3.690	23.52	3.158	37.04	2.412	48.04	1.501	55.76	0.487	59.68	32
33	3.967	8.65	3.683	23.76	3.147	37.25	2.398	48.20	1.484	55.86	0.470	59.72	33
34	3.965	8.91	3.676	24.00	3.137	37.45	2.384	48.35	1.468	55.95	0.453	59.75	34
35	3.962	9.17	3.669	24.24	3.126	37.66	2.370	48.51	1.452	56.04	0.435	59.77	35
36	3.959	9.43	3.662	24.48	3.115	37.86	2.356	48.66	1.436	56.14	0.418	59.80	36
37	3.956	9.69	3.654	24.72	3.104	38.07	2.341	48.82	1.419	56.23	0.401	59.83	37
38	3.953	9.94	3.647	24.96	3.093	38.27	2.327	48.97	1.403	56.33	0.383	59.85	38
39	3.950	10.20	3.640	25.19	3.081	38.47	2.313	49.12	1.386	56.42	0.366	59.88	39
40	3.947	10.46	3.632	25.43	3.070	38.67	2.298	49.27	1.370	56.51	0.348	59.90	40
41	3.944	10.72	3.625	25.67	3.059	38.87	2.284	49.42	1.354	56.60	0.331	59.92	41
42	3.941	10.98	3.617	25.91	3.048	39.07	2.270	49.57	1.337	56.69	0.313	59.94	42
43	3.938	11.23	3.610	26.15	3.037	39.27	2.256	49.72	1.321	56.77	0.296	59.96	43
44	3.935	11.49	3.603	26.38	3.025	39.47	2.241	49.86	1.304	56.86	0.279	59.98	44
45	3.931	11.75	3.595	26.62	3.014	39.67	2.227	50.01	1.287	56.94	0.261	60.00	45
46	3.928	12.01	3.587	26.85	3.002	39.87	2.212	50.15	1.271	57.03	0.244	60.02	46
47	3.924	12.26	3.579	27.09	2.991	40.06	2.198	50.30	1.254	57.11	0.227	60.03	47
48	3.921	12.52	3.571	27.32	2.979	40.25	2.183	50.44	1.237	57.19	0.209	60.04	48
49	3.917	12.77	3.563	27.55	2.967	40.45	2.168	50.58	1.221	57.27	0.192	60.06	49
50	3.913	13.03	3.555	27.78	2.955	40.64	2.153	50.72	1.204	57.35	0.174	60.07	50
51	3.909	13.29	3.547	28.01	2.943	40.83	2.138	50.86	1.187	57.43	0.157	60.08	51
52	3.906	13.54	3.539	28.25	2.932	41.03	2.124	51.00	1.171	57.51	0.139	60.09	52
53	3.902	13.80	3.531	28.48	2.920	41.22	2.109	51.14	1.154	57.58	0.122	60.10	53
54	3.898	14.05	3.523	28.71	2.908	41.41	2.094	51.28	1.137	57.66	0.104	60.11	54
55	3.894	14.31	3.514	28.94	2.896	41.60	2.079	51.41	1.120	57.73	0.087	60.11	55
56	3.890	14.56	3.506	29.17	2.884	41.79	2.064	51.55	1.104	57.81	0.069	60.12	56
57	3.885	14.82	3.497	29.40	2.871	41.97	2.049	51.68	1.087	57.88	0.052	60.12	57
58	3.881	15.07	3.489	29.63	2.859	42.16	2.034	51.82	1.070	57.95	0.034	60.13	58
59	3.877	15.33	3.480	29.85	2.847	42.35	2.018	51.95	1.053	58.02	0.017	60.13	59
60	3.872	15.58	3.471	30.08	2.834	42.53	2.003	52.08	1.036	58.09		60.13	60

Reduktionsgrößen 1947

Übertragung von Sternörtern vom mittleren Äquinoktium 1947.0 auf das Normaläquinoktium 1950.0

α	B	α	α	B	α
h m	s	h m	h m	s	h m
0 0	+9.220	12 0	6 0	+9.220	18 0
10	9.220	10	10	9.220	10
20	9.220	20	20	9.220	20
30	9.220	30	30	9.220	30
40	9.220	40	40	9.220	40
50	9.220	50	50	9.220	50
1 0	+9.220	13 0	7 0	+9.220	19 0
10	9.220	10	10	9.220	10
20	9.220	20	20	9.220	20
30	9.220	30	30	9.220	30
40	9.220	40	40	9.220	40
50	9.220	50	50	9.220	50
2 0	+9.219	14 0	8 0	+9.220	20 0
10	9.219	10	10	9.220	10
20	9.219	20	20	9.220	20
30	9.219	30	30	9.220	30
40	9.219	40	40	9.220	40
50	9.219	50	50	9.220	50
3 0	+9.219	15 0	9 0	+9.220	21 0
10	9.219	10	10	9.220	10
20	9.219	20	20	9.220	20
30	9.219	30	30	9.220	30
40	9.219	40	40	9.220	40
50	9.219	50	50	9.220	50
4 0	+9.219	16 0	10 0	+9.220	22 0
10	9.220	10	10	9.220	10
20	9.220	20	20	9.220	20
30	9.220	30	30	9.220	30
40	9.220	40	40	9.220	40
50	9.220	50	50	9.220	50
5 0	+9.220	17 0	11 0	+9.220	23 0
10	9.220	10	10	9.220	10
20	9.220	20	20	9.220	20
30	9.220	30	30	9.220	30
40	9.220	40	40	9.220	40
50	9.220	50	50	9.220	50
6 0	+9.220	18 0	12 0	+9.220	24 0

C	ΔC	P	C	ΔC	P
s	s	s	s	s	s
0	e0.000	e0.0000	350	e0.076	e0.1909
10	000	0055	360	082	1963
20	000	0109	370	089	2018
30	000	0164	380	097	2072
40	000	0218	390	104	2127
50	e0.000	e0.0273	400	e0.113	e0.2181
60	000	0327	410	121	2236
70	001	0382	420	131	2290
80	001	0436	430	140	2345
90	001	0491	440	150	2399
100	e0.002	e0.0545	450	e0.161	e0.2454
110	002	0600	460	172	2508
120	003	0654	470	183	2563
130	004	0709	480	195	2617
140	005	0764	490	207	2672
150	e0.006	e0.0818	500	e0.220	e0.2726
160	007	0873	510	234	2781
170	009	0927	520	248	2835
180	010	0982	530	262	2890
190	012	1036	540	277	2944
200	e0.014	e0.1091	550	e0.293	e0.2999
210	016	1145	560	309	3053
220	019	1200	570	326	3107
230	022	1254	580	344	3162
240	025	1309	590	362	3216
250	e0.028	e0.1363	600	e0.380	e0.3271
260	031	1418	610	400	3325
270	035	1473	620	420	3380
280	039	1527	630	440	3434
290	043	1582	640	462	3489
300	e0.048	e0.1636	650	e0.484	e0.3543
310	053	1691	660	506	3598
320	058	1745	670	529	3652
330	063	1800	680	553	3707
340	069	1854	690	578	3761
350	e0.076	e0.1909	700	e0.604	e0.3815

e bedeutet: Vorzeichen entgegengesetzt dem Vorzeichen des Arguments.

$$\alpha_{1950} = \alpha_{1947} + B + C + \Delta C, \text{ wobei } C = A.\ \mathrm{tg}\,(\delta_{1947} + D)$$
$$\delta_{1950} = \delta_{1947} + D + R, \text{ wobei } R = A.\ P$$

A und *D* sind aus der Tafel S. 288* u. 289* mit dem Argument α_{1947} zu entnehmen. Für die Werte von α zwischen 0^h und 12^h gelten die Vorzeichen zur Linken, für die Werte von α zwischen 12^h und 24^h die Vorzeichen zur Rechten. *B*, *ΔC* und *P* sind in der obenstehenden Tafel enthalten. Die Vorzeichen von *ΔC* und *P* sind dem Vorzeichen von *C* entgegengesetzt.

Finsternisse, Trabanten

Konstellationen, Hilfstafeln

1947

Sonnen- und Mondfinsternisse 1947

Im Jahre 1947 finden zwei Sonnenfinsternisse und eine Mondfinsternis statt.

I. Totale Sonnenfinsternis 1947 Mai 20
unsichtbar in Berlin

Konjunktion in Rektaszension	Mai 20, 13h 35m 4.4s	Weltzeit

Rektaszension des Mondes	3h 45m 50.46s
Stündliche Änderung	2 28.66
Rektaszension der Sonne	3 45 50.46
Stündliche Änderung	9.99
Deklination des Mondes	+19° 30′ 8.6″
Stündliche Änderung	+ 11 22.0
Deklination der Sonne	+19 52 30.5
Stündliche Änderung	+ 31.7
Äquatorialhorizontalparallaxe des Mondes	60′ 16.1″
,, der Sonne	8.7
Halbmesser des Mondes	16′ 24.5″
,, der Sonne	15 48.2

	Weltzeit		Westl. Länge von Greenwich	Geogr. Breite
		h m	° ′	° ′
Anfang der Finsternis	Mai 20,	11 10.8	66 42	−29 44
Beginn der zentralen Verfinsterung	,,	12 9.5	77 46	−36 30
Zentrale Verfinsterung im wahren Mittag .	,,	13 35.1	24 40	− 1 59
Ende der zentralen Verfinsterung	,,	15 25.3	323 3	− 2 13
Ende der Finsternis	,,	16 23.9	335 9	+ 4 45

Verlauf der Zentrallinie

Weltzeit	Westl. Länge von Greenwich	Geogr. Breite	Dauer der Totalität	Weltzeit	Westl. Länge von Greenwich	Geogr. Breite	Dauer der Totalität
h m	° ′	° ′	m s	h m	° ′	° ′	m s
12 9.5	77 46	−36 30	—	14 0	17 50.6	+2 4.9	5 13.5
12 10	71 43.9	−34 4.2	2 22.8	14 10	14 55.4	+3 22.3	5 9.9
12 15	60 1.8	−28 15.9	2 51.3	14 15	13 23.7	+3 56.3	5 6.8
12 20	54 26.0	−24 54.1	3 8.8	14 20	11 48.5	+4 27.1	5 2.8
12 25	50 25.2	−22 13.8	3 23.1	14 25	10 9.2	+4 54.5	4 58.0
12 30	47 13.0	−19 56.3	3 35.7	14 30	8 25.2	+5 18.3	4 52.3
12 35	44 31.2	−17 54.1	3 47.1	14 35	6 35.5	+5 38.1	4 45.7
12 40	42 10.1	−16 3.1	3 57.5	14 40	4 39.1	+5 53.5	4 38.2
12 45	40 4.0	−14 21.0	4 7.2	14 45	2 34.7	+6 4.1	4 29.9
12 50	38 9.1	−12 46.0	4 16.1	14 50	0 20.6	+6 9.3	4 20.6
12 55	36 22.7	−11 17.1	4 24.4	14 55	357 54.5	+6 8.1	4 10.3
13 0	34 43.0	− 9 53.4	4 32.1	15 0	355 13.2	+5 59.2	3 59.0
13 10	31 38.6	− 7 19.8	4 45.7	15 5	352 11.6	+5 40.7	3 46.5
13 20	28 47.0	− 5 1.7	4 56.7	15 10	348 41.1	+5 9.3	3 32.6
13 30	26 2.5	− 2 57.0	5 5.3	15 15	344 25.7	+4 18.7	3 16.7
13 40	23 20.7	− 1 4.8	5 11.0	15 20	338 44.8	+2 53.7	2 57.4
13 50	20 37.9	+ 0 35.8	5 13.9	15 25	327 12.6	−0 44.0	2 24.8
14 0	17 50.6	+ 2 4.9	5 13.5	15 25.3	323 3	−2 13	—

Die Finsternis ist sichtbar in Südamerika mit Ausnahme des nordwestlichsten Teiles, im mittleren und südlichen Teil des Atlantischen Ozeans, in Afrika, in Arabien und an der Westküste von Madagaskar.

Elemente der totalen Sonnenfinsternis 1947 Mai 20

Weltzeit	x	y	log sin d	log cos d	μ	$l^{(a)}$	$l^{(i)}$
h m					° ′ ″		
11 10	−1.313869	−0.808684	9.531036	9.973382	348 24 8.8	+0.535907	−0.009960
20	1.223339	0.778548	9.531065	9.973378	350 54 9.3	0.535903	0.009964
30	1.132802	0.748418	9.531095	9.973374	353 24 9.9	0.535899	0.009968
40	1.042259	0.718292	9.531124	9.973371	355 54 10.4	0.535894	0.009973
50	0.951711	0.688171	9.531153	9.973367	358 24 10.9	0.535888	0.009979
12 0	−0.861157	−0.658055	9.531183	9.973363	0 54 11.4	+0.535881	−0.009985
10	0.770598	0.627944	9.531212	9.973359	3 24 11.9	0.535874	0.009992
20	0.680033	0.597838	9.531242	9.973355	5 54 12.5	0.535866	0.010000
30	0.589464	0.567738	9.531271	9.973351	8 24 13.0	0.535857	0.010008
40	0.498890	0.537643	9.531300	9.973348	10 54 13.5	0.535848	0.010017
50	0.408312	0.507553	9.531329	9.973344	13 24 14.0	0.535838	0.010027
13 0	−0.317729	−0.477469	9.531358	9.973340	15 54 14.5	+0.535828	−0.010038
10	0.227143	0.447390	9.531388	9.973336	18 24 15.0	0.535817	0.010049
20	0.136553	0.417317	9.531417	9.973333	20 54 15.6	0.535805	0.010061
30	−0.045959	0.387250	9.531447	9.973329	23 24 16.1	0.535792	0.010074
40	+0.044638	0.357188	9.531476	9.973325	25 54 16.6	0.535779	0.010087
50	0.135237	0.327133	9.531505	9.973321	28 24 17.1	0.535765	0.010101
14 0	+0.225839	−0.297084	9.531535	9.973317	30 54 17.6	+0.535750	−0.010116
10	0.316444	0.267041	9.531564	9.973313	33 24 18.1	0.535735	0.010131
20	0.407051	0.237004	9.531593	9.973310	35 54 18.7	0.535719	0.010147
30	0.497659	0.206973	9.531622	9.973306	38 24 19.2	0.535702	0.010164
40	0.588269	0.176949	9.531652	9.973302	40 54 19.7	0.535685	0.010181
50	0.678881	0.146931	9.531681	9.973298	43 24 20.2	0.535667	0.010199
15 0	+0.769494	−0.116919	9.531710	9.973294	45 54 20.7	+0.535648	−0.010218
10	0.860108	0.086914	9.531740	9.973290	48 24 21.2	0.535628	0.010237
20	0.950723	0.056916	9.531769	9.973286	50 54 21.7	0.535608	0.010257
30	1.041338	−0.026925	9.531798	9.973283	53 24 22.2	0.535587	0.010278
40	1.131953	+0.003059	9.531827	9.973279	55 54 22.8	0.535565	0.010300
50	1.222568	0.033036	9.531856	9.973275	58 24 23.3	0.535543	0.010322
16 0	+1.313183	+0.063005	9.531885	9.973271	60 54 23.8	+0.535520	−0.010345
10	1.403797	0.092967	9.531914	9.973268	63 24 24.3	0.535496	0.010369
20	1.494411	0.122922	9.531943	9.973264	65 54 24.8	0.535472	0.010393
30	+1.585024	+0.152870	9.531973	9.973260	68 24 25.3	+0.535447	−0.010418

Weltzeit	x'	y'	log tang $f^{(a)}$	log tang $f^{(i)}$
h m				
11 0	+0.0090521	+0.0030143	7.66461	7.66244
12 0	0.0090557	0.0030113	7.66461	7.66244
13 0	0.0090584	0.0030081	7.66460	7.66243
14 0	0.0090603	0.0030046	7.66460	7.66243
15 0	0.0090613	0.0030008	7.66459	7.66243
16 0	0.0090614	0.0029966	7.66459	7.66242
17 0	+0.0090607	+0.0029920	7.66459	7.66242

II. Partielle Mondfinsternis 1947 Juni 3
unsichtbar in Berlin

		h m s	
Opposition in Rektaszension	Juni 3,	19 42 18.0	Weltzeit

	h m s
Rektaszension des Mondes	16 43 36.07
Stündliche Änderung	2 8.14
Rektaszension der Sonne	4 43 36.07
Stündliche Änderung	10.26
	° ′ ″
Deklination des Mondes	−23 12 17.0
Stündliche Änderung	− 6 37.5
Deklination der Sonne	+22 17 8.8
Stündliche Änderung	+ 18.7
	′ ″
Äquatorialhorizontalparallaxe des Mondes	54 29.8
,, der Sonne	8.7
	′ ″
Halbmesser des Mondes	14 50.2
,, der Sonne	15 46.0

		h m	
Eintritt des Mondes in den Halbschatten	Juni 3,	16 48.7	Weltzeit
Eintritt des Mondes in den Kernschatten	,,	18 56.4	,,
Mitte der Finsternis	,,	19 15.3	,,
Austritt des Mondes aus dem Kernschatten	,,	19 34.2	,,
Austritt des Mondes aus dem Halbschatten	,,	21 41.8	,,

Der Mond steht zu den Zeiten der ersten und letzten Berührung mit dem Kernschatten im Zenit der Orte, deren geographische Lage ist:

284° 59′ westliche Länge von Greenwich, 23° 7′ südliche Breite
294 7 ,, ,, ,, ,, 23 11 ,, ,,

Positionswinkel des Eintritts = 32°
,, ,, Austritts = 14
Größe der Finsternis in Einheiten des Monddurchmessers = 0.024

Die Finsternis ist sichtbar in Afrika mit Ausnahme des westlichen Teiles, im Osten und Südosten Europas, in Asien mit Ausnahme des nördlichen und nordöstlichen Teiles, im Indischen Ozean, in Australien und im Südlichen Eismeer.

III. Ringförmige Sonnenfinsternis 1947 November 12 unsichtbar in Berlin

		h m s	
Konjunktion in Rektaszension	Nov. 12,	19 48 32.3	Weltzeit

	h m s
Rektaszension des Mondes	15 8 31.72
Stündliche Änderung	2 6.54
Rektaszension der Sonne	15 8 31.72
Stündliche Änderung	10.17
	° ′ ″
Deklination des Mondes	—17 15 29.1
Stündliche Änderung	— 11 34.9
Deklination der Sonne	—17 38 5.4
Stündliche Änderung	— 40.9
	′ ″
Äquatorialhorizontalparallaxe des Mondes	56 25.2
,, der Sonne	8.9
	′ ″
Halbmesser des Mondes	15 21.7
,, der Sonne	16 9.7

		Weltzeit	Westl. Länge von Greenwich	Geogr. Breite
		h m	° ′	° ′
Anfang der Finsternis	Nov. 12,	17 13.9	160 17	+33 35
Beginn der zentralen Verfinsterung	,,	18 20.4	172 59	+41 5
Zentrale Verfinsterung im wahren Mittag	,,	19 48.5	121 6	+ 6 6
Ende der zentralen Verfinsterung	,,	21 50.0	61 39	+ 0 34
Ende der Finsternis	,,	22 56.5	75 47	— 7 11

Verlauf der Zentrallinie

Weltzeit	Westl. Länge von Greenwich	Geogr. Breite	Dauer der ringförm. Verfinsterung	Weltzeit	Westl. Länge von Greenwich	Geogr. Breite	Dauer d. ringförm. Verfinsterung
h m	° ′	° ′	m s	h m	° ′	° ′	m s
18 20.4	172 59	+41 5	—	20 10	116 17.0	+2 5.2	4 0.3
18 25	156 12.9	+34 4.9	3 25.0	20 20	113 57.4	+0 27.5	4 1.9
18 30	150 5.9	+30 38.9	3 27.8	20 30	111 30.5	—1 1.1	4 2.8
18 35	145 54.4	+27 56.8	3 30.2	20 40	108 53.0	—2 20.0	4 2.8
18 40	142 39.2	+25 37.8	3 32.3	20 45	107 29.1	—2 55.5	4 2.6
18 45	139 58.2	+23 33.9	3 34.3	20 50	106 1.0	—3 28.2	4 2.0
18 50	137 40.1	+21 40.8	3 36.2	20 55	104 27.9	—3 58.0	4 1.2
18 55	135 38.8	+19 56.2	3 38.0	21 0	102 49.0	—4 24.5	4 0.2
19 0	133 50.0	+18 18.5	3 39.8	21 5	101 3.3	—4 47.4	3 58.9
19 5	132 10.8	+16 46.5	3 41.5	21 10	99 9.6	—5 6.4	3 57.2
19 10	130 39.3	+15 19.3	3 43.3	21 15	97 6.0	—5 20.7	3 55.4
19 15	129 13.8	+13 56.4	3 45.0	21 20	94 50.2	—5 29.6	3 53.2
19 20	127 53.1	+12 37.4	3 46.6	21 25	92 19.0	—5 32.0	3 50.7
19 25	126 36.3	+11 21.8	3 48.2	21 30	89 27.3	—5 26.2	3 47.8
19 30	125 22.6	+10 9.4	3 49.8	21 35	86 6.6	—5 9.3	3 44.4
19 40	123 1.8	+ 7 53.4	3 52.9	21 40	82 0.4	—4 35.7	3 40.5
19 50	120 46.2	+ 5 47.8	3 55.7	21 45	76 25.5	—3 31.2	3 35.6
20 0	118 32.3	+ 3 51.9	3 58.2	21 50	63 7.5	+0 5.5	3 26.1
20 10	116 17.0	+ 2 5.2	4 0.3	21 50.0	61 39	+0 34	—

Die Finsternis ist sichtbar in Nordamerika mit Ausnahme des nordöstlichen Teiles, in Mittelamerika, in Südamerika mit Ausnahme des östlichen und des südlichen Teiles und im Stillen Ozean.

Elemente der ringförmigen Sonnenfinsternis 1947 November 12

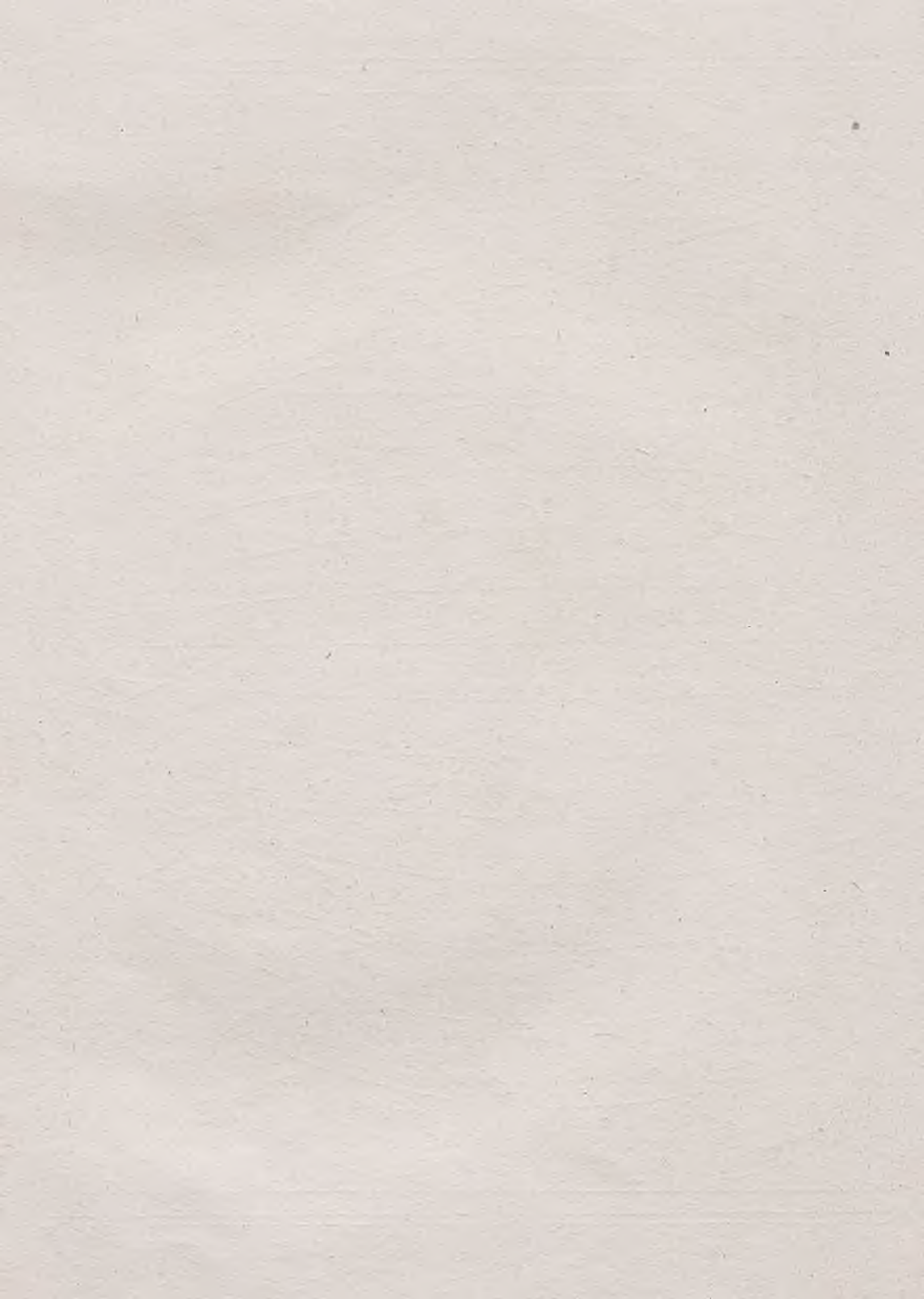
Weltzeit	x	y	log sin d	log cos d	μ	$l^{(a)}$	$l^{(i)}$
h m					° ′ ″		
17 10	−1.304351	+0.913786	9.480707n	9.979163	81 27 45.1	+0.559802	+0.013816
20	1.222100	0.881455	9.480751n	9.979159	83 57 45.1	0.559832	0.013846
30	1.139845	0.849128	9.480794n	9.979154	86 27 45.1	0.559861	0.013875
40	1.057586	0.816805	9.480837n	9.979150	88 57 45.1	0.559890	0.013904
50	0.975324	0.784486	9.480881n	9.979145	91 27 45.1	0.559918	0.013932
18 0	−0.893059	+0.752171	9.480924n	9.979141	93 57 45.1	+0.559946	+0.013959
10	0.810791	0.719860	9.480968n	9.979137	96 27 45.1	0.559973	0.013986
20	0.728519	0.687554	9.481011n	9.979132	98 57 45.1	0.559999	0.014012
30	0.646244	0.655253	9.481054n	9.979128	101 27 45.0	0.560025	0.014038
40	0.563967	0.622957	9.481097n	9.979123	103 57 45.0	0.560050	0.014063
50	0.481687	0.590665	9.481141n	9.979119	106 27 45.0	0.560075	0.014087
19 0	−0.399405	+0.558379	9.481184n	9.979115	108 57 45.0	+0.560099	+0.014111
10	0.317121	0.526097	9.481227n	9.979110	111 27 45.0	0.560122	0.014134
20	0.234835	0.493820	9.481271n	9.979106	113 57 45.0	0.560145	0.014157
30	0.152546	0.461548	9.481314n	9.979102	116 27 45.0	0.560167	0.014179
40	−0.070256	0.429281	9.481357n	9.979097	118 57 45.0	0.560189	0.014200
50	+0.012035	0.397019	9.481400n	9.979093	121 27 45.0	0.560210	0.014221
20 0	+0.094327	+0.364763	9.481444n	9.979088	123 57 45.0	+0.560230	+0.014241
10	0.176621	0.332512	9.481487n	9.979084	126 27 44.9	0.560250	0.014261
20	0.258916	0.300266	9.481530n	9.979079	128 57 44.9	0.560269	0.014280
30	0.341211	0.268026	9.481573n	9.979075	131 27 44.9	0.560287	0.014298
40	0.423507	0.235791	9.481616n	9.979071	133 57 44.9	0.560305	0.014316
50	0.505803	0.203562	9.481659n	9.979067	136 27 44.9	0.560322	0.014333
21 0	+0.588100	+0.171339	9.481702n	9.979062	138 57 44.9	+0.560339	+0.014350
10	0.670397	0.139121	9.481746n	9.979058	141 27 44.9	0.560355	0.014366
20	0.752694	0.106909	9.481789n	9.979054	143 57 44.8	0.560371	0.014381
30	0.834990	0.074704	9.481832n	9.979049	146 27 44.8	0.560386	0.014396
40	0.917286	0.042504	9.481875n	9.979045	148 57 44.8	0.560400	0.014410
50	0.999582	+0.010310	9.481918n	9.979040	151 27 44.8	0.560414	0.014424
22 0	+1.081877	−0.021878	9.481961n	9.979036	153 57 44.8	+0.560427	+0.014437
10	1.164171	0.054060	9.482004n	9.979032	156 27 44.7	0.560440	0.014450
20	1.246464	0.086235	9.482047n	9.979027	158 57 44.7	0.560452	0.014462
30	1.328756	0.118404	9.482090n	9.979023	161 27 44.7	0.560463	0.014473
40	1.411047	0.150567	9.482133n	9.979018	163 57 44.7	0.560474	0.014484
50	1.493336	0.182723	9.482176n	9.979014	166 27 44.6	0.560484	0.014494
23 0	+1.575622	−0.214873	9.482220n	9.979010	168 57 44.6	+0.560493	+0.014503

Weltzeit	x'	y'	log tang $f^{(a)}$	log tang $f^{(i)}$
h m				
17 0	+0.0082244	−0.0032338	7.67442	7.67225
18 0	0.0082267	0.0032313	7.67442	7.67225
19 0	0.0082283	0.0032284	7.67443	7.67226
20 0	0.0082293	0.0032253	7.67443	7.67226
21 0	0.0082297	0.0032220	7.67443	7.67227
22 0	0.0082294	0.0032185	7.67444	7.67227
23 0	+0.0082285	−0.0032147	7.67444	7.67228

Totale Sonnenfinsternis

1947 Mai 20

Zu S. 292*



Ringförmige Sonnenfinsternis

1947 November 12

Westl. Länge von Greenwich

NORD-AMERIKA

SÜD-AMERIKA

Atlantischer Ozean

Stiller Ozean

Nördliche Grenzkurve

Südliche Grenzkurve

Zone der ringförmigen Verfinsterung

Erster Kontakt

Letzter Kontakt

Ende bei Sonnenaufgang

Mitte bei Sonnenaufgang

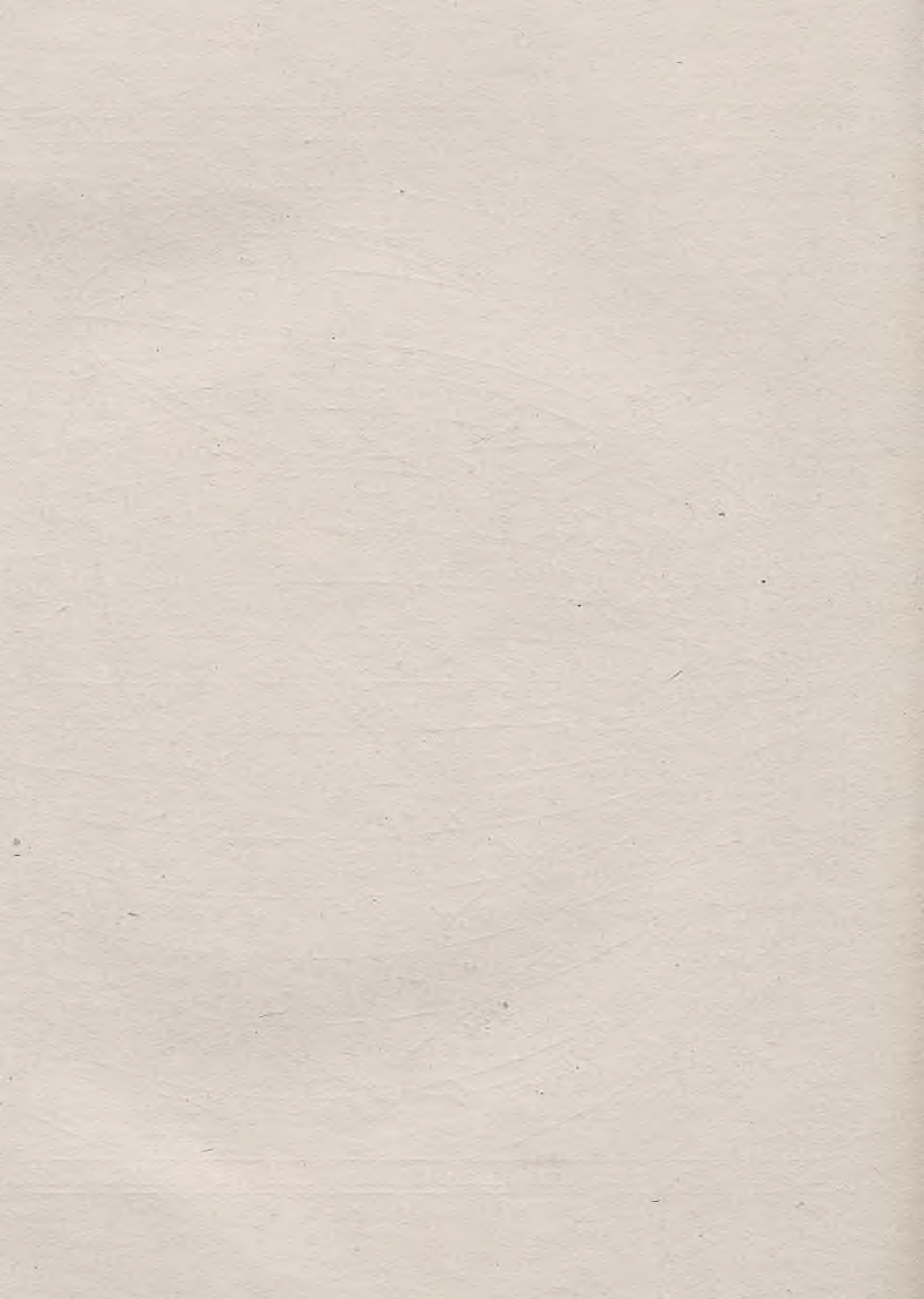
Anfang bei Sonnenaufgang

Anfang bei Sonnenuntergang

Mitte bei Sonnenuntergang

Ende bei Sonnenuntergang

Zu S. 295*



0h Weltzeit	Mondbewegung ☊	$L_☾$	$\tilde{\omega}_☾$	$M_☾$	Lage des Mondäquators gegen den Erdäquator i	diff	Δ	diff	☊′	diff	Δ–☋	diff
1947	°	°	°	°	°		°		°		°	
Jan. –1	70.2561	356.6987	86.523	270.176	22.970	13	253.665	539	356.287	10	3.413	9
+9	69.7266	128.4626	87.637	40.826	22.957	14	253.126	539	356.297	11	3.404	10
19	69.1971	260.2266	88.751	171.476	22.943	13	252.587	539	356.308	11	3.394	10
29	68.6675	31.9906	89.865	302.126	22.930	14	252.048	540	356.319	11	3.384	10
Febr. 8	68.1380	163.7546	90.979	72.776	22.916	13	251.508	540	356.330	12	3.374	11
18	67.6084	295.5185	92.093	203.426	22.903	14	250.968	541	356.342	12	3.363	11
28	67.0789	67.2825	93.207	334.076	22.889	13	250.427	541	356.354	12	3.352	11
März 10	66.5494	199.0465	94.321	104.726	22.876	13	249.886	541	356.366	13	3.341	12
20	66.0198	330.8104	95.435	235.375	22.863	14	249.345	542	356.379	13	3.329	11
30	65.4903	102.5744	96.549	6.025	22.849	13	248.803	541	356.392	14	3.318	13
April 9	64.9607	234.3384	97.663	136.675	22.836	13	248.262	542	356.406	13	3.305	12
19	64.4312	6.1023	98.777	267.325	22.823	13	247.720	543	356.419	14	3.293	13
29	63.9017	137.8663	99.891	37.975	22.810	13	247.177	542	356.433	15	3.280	13
Mai 9	63.3721	269.6303	101.005	168.625	22.797	13	246.635	543	356.448	15	3.267	13
19	62.8426	41.3942	102.119	299.275	22.784	13	246.092	543	356.463	15	3.254	14
29	62.3130	173.1582	103.233	69.925	22.771	13	245.549	544	356.478	15	3.240	14
Juni 8	61.7835	304.9222	104.347	200.575	22.758	13	245.005	543	356.493	16	3.226	14
18	61.2540	76.6861	105.461	331.225	22.745	13	244.462	544	356.509	16	3.212	15
28	60.7244	208.4501	106.575	101.875	22.732	13	243.918	545	356.525	16	3.197	15
Juli 8	60.1949	340.2141	107.689	232.525	22.719	12	243.373	544	356.541	17	3.182	15
18	59.6654	111.9780	108.803	3.175	22.707	13	242.829	545	356.558	17	3.167	15
28	59.1358	243.7420	109.917	133.825	22.694	12	242.284	546	356.575	17	3.152	16
Aug. 7	58.6063	15.5060	111.032	264.474	22.682	13	241.738	545	356.592	18	3.136	16
17	58.0767	147.2699	112.146	35.124	22.669	12	241.193	546	356.610	18	3.120	17
27	57.5472	279.0339	113.260	165.774	22.657	12	240.647	546	356.628	18	3.103	16
Sept. 6	57.0177	50.7979	114.374	296.424	22.645	13	240.101	547	356.646	18	3.087	17
16	56.4881	182.5618	115.488	67.074	22.632	12	239.554	547	356.664	19	3.070	18
26	55.9586	314.3258	116.602	197.724	22.620	12	239.007	547	356.683	20	3.052	17
Okt. 6	55.4290	86.0898	117.716	328.374	22.608	12	238.460	547	356.703	19	3.035	18
16	54.8995	217.8538	118.830	99.024	22.596	12	237.913	548	356.722	20	3.017	18
26	54.3700	349.6177	119.944	229.674	22.584	12	237.365	548	356.742	20	2.999	18
Nov. 5	53.8404	121.3817	121.058	0.324	22.572	12	236.817	548	356.762	20	2.981	19
15	53.3109	253.1457	122.172	130.974	22.560	12	236.269	549	356.782	21	2.962	19
25	52.7813	24.9096	123.286	261.624	22.548	12	235.720	548	356.803	21	2.943	19
Dez. 5	52.2518	156.6736	124.400	32.274	22.536	11	235.172	549	356.824	21	2.924	20
15	51.7223	288.4376	125.514	162.924	22.525	12	234.623	549	356.845	22	2.904	20
25	51.1927	60.2015	126.628	293.573	22.513	11	234.074	550	356.867	22	2.884	20
35	50.6632	191.9655	127.742	64.223	22.502		233.524		356.889		2.864	

Jupitertrabanten 1947

Verfinsterungen: E. = Eintritte, A. = Austritte (in Weltzeit)

TRABANT I

		h	m	
Jan.	2	14	16.2	E.
	4	8	44.6	E.
	6	3	12.9	E.
	7	21	41.3	E.
	9	16	9.6	E.
	11	10	38.0	E.
	13	5	6.2	E.
	14	23	34.6	E.
	16	18	2.8	E.
	18	12	31.2	E.
	20	6	59.5	E.
	22	1	27.8	E.
	23	19	56.0	E.
	25	14	24.4	E.
	27	8	52.6	E.
	29	3	20.9	E.
	30	21	49.2	E.
Febr.	1	16	17.5	E.
	3	10	45.7	E.
	5	5	14.0	E.
	6	23	42.2	E.
	8	18	10.5	E.
	10	12	38.8	E.
	12	7	7.0	E.
	14	1	35.2	E.
	15	20	3.5	E.
	17	14	31.8	E.
	19	9	0.0	E.
	21	3	28.2	E.
	22	21	56.5	E.
	24	16	24.7	E.
	26	10	53.0	E.
	28	5	21.2	E.
März	1	23	49.5	E.
	3	18	17.7	E.
	5	12	46.0	E.
	7	7	14.2	E.
	9	1	42.4	E.
	10	20	10.7	E.
	12	14	38.9	E.
	14	9	7.1	E.
	16	3	35.4	E.
	17	22	3.6	E.
	19	16	31.9	E.
	21	11	0.1	E.
	23	5	28.4	E.
	24	23	56.7	E.
	26	18	24.9	E.

TRABANT I

		h	m	
März	28	12	53.2	E.
	30	7	21.5	E.
April	1	1	49.7	E.
	2	20	18.0	E.
	4	14	46.3	E.
	6	9	14.6	E.
	8	3	43.0	E.
	9	22	11.2	E.
	11	16	39.4	E.
	13	11	7.8	E.
	15	5	36.1	E.
	17	0	4.4	E.
	18	18	32.7	E.
	20	13	1.1	E.
	22	7	29.4	E.
	24	1	57.7	E.
	25	20	26.1	E.
	27	14	54.4	E.
	29	9	22.8	E.
Mai	1	3	51.2	E.
	2	22	19.5	E.
	4	16	48.0	E.
	6	11	16.4	E.
	8	5	44.7	E.
	10	0	13.1	E.
	11	18	41.6	E.
	13	13	10.0	E.
	15	9	48.0	A.
	17	4	16.5	A.
	18	22	44.9	A.
	20	17	13.4	A.
	22	11	41.9	A.
	24	6	10.4	A.
	26	0	38.9	A.
	27	19	7.4	A.
	29	13	35.9	A.
	31	8	4.4	A.
Juni	2	2	32.9	A.
	3	21	1.5	A.
	5	15	30.0	A.
	7	9	58.5	A.
	9	4	27.1	A.
	10	22	55.6	A.
	12	17	24.2	A.
	14	11	52.8	A.
	16	6	21.4	A.
	18	0	50.0	A.
	19	19	18.6	A.

TRABANT I

		h	m	
Juni	21	13	47.2	A.
	23	8	16.0	A.
	25	2	44.5	A.
	26	21	13.1	A.
	28	15	41.8	A.
	30	10	10.4	A.
Juli	2	4	39.1	A.
	3	23	7.7	A.
	5	17	36.4	A.
	7	12	5.0	A.
	9	6	33.8	A.
	11	1	2.4	A.
	12	19	31.1	A.
	14	13	59.8	A.
	16	8	28.5	A.
	18	2	57.2	A.
	19	21	25.9	A.
	21	15	54.6	A.
	23	10	23.4	A.
	25	4	52.1	A.
	26	23	20.8	A.
	28	17	49.5	A.
	30	12	18.3	A.
Aug.	1	6	47.0	A.
	3	1	15.8	A.
	4	19	44.5	A.
	6	14	13.3	A.
	8	8	42.0	A.
	10	3	10.8	A.
	11	21	39.5	A.
	13	16	8.3	A.
	15	10	37.0	A.
	17	5	5.8	A.
	18	23	34.5	A.
	20	18	3.3	A.
	22	12	32.1	A.
	24	7	0.9	A.
	26	1	29.6	A.
	27	19	58.4	A.
	29	14	27.2	A.
	31	8	56.0	A.
Sept.	2	3	24.7	A.
	3	21	53.5	A.
	5	16	22.2	A.
	7	10	51.1	A.
	9	5	19.8	A.
	10	23	48.6	A.
	12	18	17.3	A.

TRABANT I

		h	m	
Sept.	14	12	46.2	A.
	16	7	14.9	A.
	18	1	43.7	A.
	19	20	12.4	A.
	21	14	41.2	A.
	23	9	9.9	A.
	25	3	38.8	A.
	26	22	7.5	A.
	28	16	36.3	A.
	30	11	5.0	A.
Okt.	2	5	33.8	A.
	4	0	2.5	A.
	5	18	31.3	A.
	7	13	0.0	A.
	9	7	28.9	A.
	11	1	57.6	A.
	12	20	26.4	A.
	14	14	55.0	A.
	16	9	23.8	A.
	18	3	52.5	A.
	19	22	21.3	A.
	21	16	50.0	A.
	23	11	18.8	A.
	25	5	47.5	A.
	27	0	16.2	A.
	28	18	44.9	A.
	30	13	13.7	A.
Nov.	1	7	42.3	A.
	3	2	11.1	A.
	4	20	39.7	A.
	6	15	8.5	A.

TRABANT I

		h	m	
Dez.	19	0	24.0	E.
	20	18	52.5	E.
	22	13	21.1	E.
	24	7	49.6	E.
	26	2	18.2	E.
	27	20	46.7	E.
	29	15	15.3	E.
	31	9	43.8	E.
	33	4	12.3	E.

Jupitertrabanten 1947

Verfinsterungen: E. = Eintritte, A. = Austritte (in Weltzeit)

TRABANT II

		h	m	
Jan.	2	2	4.9	E.
	5	15	22.1	E.
	9	4	39.1	E.
	12	17	56.3	E.
	16	7	13.4	E.
	19	20	30.7	E.
	23	9	47.7	E.
	26	23	5.2	E.
	30	12	22.2	E.
Febr.	3	1	39.8	E.
	6	14	56.9	E.
	10	4	14.5	E.
	13	17	31.7	E.
	17	6	49.4	E.
	20	20	6.6	E.
	24	9	24.5	E.
	27	22	41.7	E.
März	3	11	59.6	E.
	7	1	17.0	E.
	10	14	35.0	E.
	14	3	52.3	E.
	17	17	10.5	E.
	21	6	27.9	E.
	24	19	46.2	E.
	28	9	3.6	E.
	31	22	22.0	E.
April	4	11	39.5	E.
	8	0	58.0	E.
	11	14	15.6	E.
	15	3	34.1	E.
	18	16	51.8	E.
	22	6	10.4	E.
	25	19	28.2	E.
	29	8	46.9	E.
Mai	2	22	4.7	E.
	6	11	23.4	E.
	10	0	41.3	E.
	13	14	0.2	E.
	17	5	50.4	A.
	20	19	9.2	A.
	24	8	27.2	A.
	27	21	46.0	A.
	31	11	4.1	A.
Juni	4	0	23.0	A.
	7	13	41.0	A.
	11	2	59.9	A.
	14	16	18.0	A.
	18	5	36.9	A

TRABANT II

		h	m	
Juni	21	18	55.0	A.
	25	8	13.8	A.
	28	21	31.9	A.
Juli	2	10	50.8	A.
	6	0	8.9	A.
	9	13	27.6	A.
	13	2	45.7	A.
	16	16	4.4	A.
	20	5	22.5	A.
	23	18	41.2	A.
	27	7	59.2	A.
	30	21	17.8	A.
Aug.	3	10	35.8	A.
	6	23	54.3	A.
	10	13	12.3	A.
	14	2	30.6	A.
	17	15	48.5	A.
	21	5	6.8	A.
	24	18	24.7	A.
	28	7	42.8	A.
	31	21	0.6	A.
Sept.	4	10	18.6	A.
	7	23	36.4	A.
	11	12	54.3	A.
	15	2	12.1	A.
	18	15	29.8	A.
	22	4	47.5	A.
	25	18	5.2	A.
	29	7	22.7	A.
Okt.	2	20	40.3	A.
	6	9	57.8	A.
	9	23	15.2	A.
	13	12	32.7	A.
	17	1	50.0	A.
	20	15	7.3	A.
	24	4	24.6	A.
	27	17	41.9	A.
	31	6	59.1	A.
Nov.	3	20	16.2	A.
	7	9	33.3	A.

		h	m	
Dez.	19	22	25.4	E.
	23	11	42.1	E.
	27	0	58.8	E.
	30	14	15.5	E.
	34	3	32.3	E.

TRABANT III

		h	m	
Jan.	6	11	55.5	E.
	6	13	56.4	A.
	13	15	52.6	E.
	13	17	53.4	A.
	20	19	50.0	E.
	20	21	50.8	A.
	27	23	47.3	E.
	28	1	48.2	A.
Febr.	4	3	45.2	E.
	4	5	46.2	A.
	11	7	42.5	E.
	11	9	43.6	A.
	18	11	39.6	E.
	18	13	40.9	A.
	25	15	36.4	E.
	25	17	37.8	A.
März	4	19	33.2	E.
	4	21	34.7	A.
	11	23	30.4	E.
	12	1	32.2	A.
	19	3	27.6	E.
	19	5	29.6	A.
	26	7	25.5	E.
	26	9	27.7	A.
April	2	11	22.9	E.
	2	13	25.4	A.
	9	15	20.2	E.
	9	17	23.0	A.
	16	19	17.3	E.
	16	21	20.4	A.
	23	23	14.5	E.
	24	1	17.9	A.
Mai	1	3	12.3	E.
	8	7	10.1	E.
	15	11	8.6	E.
	15	13	13.2	A.
	22	17	11.8	A.
	29	21	10.4	A.
Juni	5	23	2.8	E.
	6	1	8.8	A.
	13	3	0.9	E.
	13	5	7.4	A.
	20	6	59.6	E.
	20	9	6.6	A.
	27	10	58.3	E.
	27	13	5.8	A.
Juli	4	14	57.7	E.
	4	17	5.8	A.

TRABANT III

		h	m	
Juli	11	18	56.6	E.
	11	21	5.3	A.
	18	22	55.5	E.
	19	1	4.7	A.
	26	2	54.1	E.
	26	5	4.0	A.
Aug.	2	6	52.8	E.
	2	9	3.3	A.
	9	10	52.1	E.
	9	13	3.2	A.
	16	14	51.2	E.
	16	17	3.0	A.
	23	18	51.0	E.
	23	21	3.5	A.
	30	22	50.1	E.
	31	1	3.3	A.
Sept.	7	2	49.2	E.
	7	5	3.1	A.
	14	6	47.9	E.
	14	9	2.6	A.
	21	10	46.7	E.
	21	13	2.1	A.
	28	14	46.0	E.
	28	17	2.1	A
Okt.	5	18	45.0	E.
	5	21	1.9	A.
	12	22	44.6	E.
	13	1	2.3	A.
	20	2	43.5	E.
	20	5	2.1	A.
	27	6	42.3	E.
	27	9	1.7	A.
Nov.	3	13	1.0	A.

		h	m	
Dez.	23	14	30.4	E.
	30	18	28.3	E.

TRABANT IV

wird nicht verfinstert.

0h Weltzeit	α	β	pα	a	b	U′	B′	P′
1947	″	″	″	″	″	°	°	°
Jan. −3	20.20	18.32	−0.02	45.50	−14.45	319.345	−19.673	−20.915
+5	20.35	18.46	−0.01	45.84	14.73	319.641	19.580	21.012
13	20.46	18.57	0.00	46.08	14.99	319.937	19.486	21.108
21	20.52	18.63	0.00	46.21	15.22	320.232	19.392	21.203
29	20.52	18.64	0.00	46.23	15.42	320.527	19.297	21.298
Febr. 6	20.48	18.60	0.00	46.13	−15.57	320.821	−19.202	−21.392
14	20.39	18.52	+0.01	45.92	15.67	321.115	19.106	21.486
22	20.25	18.40	0.01	45.61	15.72	321.408	19.010	21.579
März 2	20.07	18.24	0.02	45.20	15.71	321.701	18.914	21.671
10	19.86	18.05	0.03	44.72	15.65	321.994	18.817	21.762
18	19.62	17.84	+0.04	44.19	−15.54	322.286	−18.720	−21.853
26	19.36	17.61	0.05	43.60	15.38	322.578	18.622	21.943
April 3	19.09	17.36	0.05	42.99	15.19	322.869	18.524	22.033
11	18.81	17.11	0.05	42.37	14.96	323.160	18.425	22.122
19	18.54	16.86	0.06	41.75	14.70	323.450	18.326	22.210
27	18.27	16.61	+0.06	41.14	−14.42	323.740	−18.227	−22.298
Mai 5	18.01	16.37	0.05	40.56	14.13	324.030	18.127	22.385
13	17.76	16.14	0.05	40.00	13.83	324.319	18.027	22.471
21	17.53	15.93	0.04	39.48	13.52	324.608	17.926	22.556
29	17.32	15.73	0.04	39.00	13.21	324.896	17.825	22.641
Juni 6	17.12	15.55	+0.03	38.57	−12.89	325.184	−17.724	−22.725
14	16.95	15.39	0.03	38.18	12.58	325.471	17.622	22.809
22	16.80	15.25	0.02	37.85	12.28	325.758	17.520	22.892
30	16.68	15.13	0.01	37.57	11.98	326.044	17.417	22.974
Juli 8	16.58	15.03	0.01	37.34	11.69	326.330	17.314	23.055
16	16.50	14.95	+0.01	37.17	−11.41	326.616	−17.211	−23.136
24	16.45	14.90	0.00	37.05	11.14	326.901	17.107	23.216
Aug. 1	16.42	14.87	0.00	36.99	10.88	327.186	17.003	23.296
9	16.42	14.86	0.00	36.98	10.63	327.471	16.899	23.375
17	16.44	14.87	0.00	37.03	10.40	327.755	16.794	23.453
25	16.49	14.91	0.00	37.14	−10.18	328.039	−16.689	−23.530
Sept. 2	16.56	14.96	−0.01	37.30	9.98	328.322	16.584	23.607
10	16.66	15.04	0.01	37.52	9.80	328.605	16.478	23.683
18	16.78	15.15	0.02	37.79	9.63	328.887	16.372	23.758
26	16.92	15.27	0.02	38.11	9.49	329.169	16.266	23.833
Okt. 4	17.09	15.42	−0.03	38.49	− 9.38	329.451	−16.159	−23.907
12	17.28	15.59	0.04	38.92	9.29	329.732	16.052	23.980
20	17.49	15.77	0.04	39.39	9.23	330.013	15.944	24.053
28	17.72	15.97	0.05	39.91	9.20	330.293	15.836	24.125
Nov. 5	17.96	16.19	0.05	40.46	9.20	330.573	15.728	24.196
13	18.22	16.42	−0.05	41.04	− 9.24	330.853	−15.620	−24.267
21	18.49	16.66	0.05	41.64	9.31	331.132	15.511	24.337
29	18.76	16.91	0.05	42.26	9.42	331.411	15.402	24.407
Dez. 7	19.03	17.15	0.05	42.87	9.57	331.689	15.293	24.476
15	19.29	17.39	0.04	43.46	9.75	331.967	15.183	24.544
23	19.54	17.62	0.04	44.02	9.96	332.244	15.073	24.611
31	19.77	17.82	−0.03	44.53	−10.21	332.521	−14.963	−24.677

0^h Weltzeit	U	B	P	$\log \frac{(\Delta)}{\Delta}$	0^h Weltzeit	U	B	P	$\log \frac{(\Delta)}{\Delta}$
1947	°	°	°		1947	°	°	°	
Jan. −3	4.182	−18.520	−7.067	0.06312	Juni 30	4.441	−18.596	−7.066	9.97989
+1	3.930	18.626	7.072	0.06485	Juli 4	4.903	18.422	7.056	9.97849
5	3.660	18.738	7.078	0.06635	8	5.374	18.242	7.046	9.97725
9	3.375	18.854	7.083	0.06761	12	5.851	18.059	7.035	9.97616
13	3.077	18.975	7.089	0.06862	16	6.334	17.873	7.023	9.97523
17	2.768	−19.099	−7.094	0.06937	20	6.822	−17.683	−7.011	9.97446
21	2.452	19.225	7.100	0.06985	24	7.313	17.491	6.998	9.97385
25	2.131	19.351	7.105	0.07006	28	7.807	17.296	6.984	9.97341
29	1.809	19.477	7.111	0.06999	Aug. 1	8.302	17.100	6.970	9.97312
Febr. 2	1.488	19.600	7.116	0.06966	5	8.797	16.902	6.956	9.97300
6	1.172	−19.721	−7.120	0.06905	9	9.291	−16.704	−6.941	9.97305
10	0.863	19.838	7.125	0.06819	13	9.784	16.505	6.925	9.97325
14	0.564	19.951	7.129	0.06707	17	10.274	16.305	6.909	9.97363
18	0.278	20.058	7.132	0.06570	21	10.760	16.106	6.893	9.97416
22	0.008	20.159	7.135	0.06410	25	11.242	15.908	6.876	9.97486
26	359.756	−20.252	−7.138	0.06227	29	11.717	−15.712	−6.860	9.97573
März 2	359.524	20.337	7.140	0.06023	Sept. 2	12.185	15.518	6.843	9.97675
6	359.314	20.414	7.142	0.05801	6	12.645	15.326	6.826	9.97793
10	359.128	20.482	7.144	0.05561	10	13.096	15.137	6.808	9.97926
14	358.967	20.541	7.146	0.05305	14	13.537	14.952	6.791	9.98076
18	358.832	−20.590	−7.147	0.05035	18	13.966	−14.771	−6.774	9.98240
22	358.725	20.630	7.148	0.04752	22	14.384	14.595	6.757	9.98419
26	358.647	20.659	7.148	0.04458	26	14.788	14.425	6.740	9.98613
30	358.598	20.678	7.149	0.04156	30	15.177	14.261	6.724	9.98820
April 3	358.578	20.686	7.149	0.03847	Okt. 4	15.551	14.103	6.708	9.99040
7	358.587	−20.685	−7.149	0.03532	8	15.908	−13.952	−6.692	9.99274
11	358.626	20.673	7.149	0.03214	12	16.248	13.809	6.677	9.99520
15	358.694	20.651	7.148	0.02894	16	16.569	13.674	6.663	9.99777
19	358.790	20.619	7.147	0.02573	20	16.871	13.547	6.650	0.00045
23	358.914	20.578	7.146	0.02253	24	17.151	13.430	6.637	0.00323
27	359.066	−20.527	−7.145	0.01935	28	17.410	−13.323	−6.625	0.00610
Mai 1	359.245	20.466	7.144	0.01621	Nov. 1	17.647	13.227	6.614	0.00905
5	359.450	20.396	7.142	0.01312	5	17.860	13.141	6.604	0.01207
9	359.680	20.317	7.140	0.01008	9	18.049	13.067	6.595	0.01515
13	359.933	20.229	7.137	0.00711	13	18.212	13.005	6.588	0.01827
17	0.210	−20.133	−7.134	0.00423	17	18.349	−12.955	−6.581	0.02143
21	0.508	20.028	7.131	0.00143	21	18.460	12.918	6.576	0.02460
25	0.827	19.915	7.127	9.99873	25	18.544	12.893	6.572	0.02778
29	1.166	19.795	7.122	9.99613	29	18.601	12.881	6.570	0.03094
Juni 2	1.523	19.668	7.117	9.99365	Dez. 3	18.630	12.882	6.569	0.03407
6	1.898	−19.533	−7.112	9.99129	7	18.632	−12.896	−6.569	0.03716
10	2.289	19.392	7.106	9.98905	11	18.606	12.923	6.571	0.04019
14	2.694	19.244	7.099	9.98694	15	18.552	12.963	6.574	0.04313
18	3.113	19.090	7.092	9.98496	19	18.471	13.016	6.579	0.04597
22	3.545	18.931	7.084	9.98312	23	18.364	13.081	6.584	0.04869
26	3.988	18.766	7.075	9.98143	27	18.231	13.157	6.591	0.05128
30	4.441	−18.596	−7.066	9.97989	31	18.073	−13.244	−6.599	0.05371

Saturnstrabanten 1947

0h Weltzeit	L	M	L	M	L	L	M	L	M
	MIMAS		ENCELADUS		TETHYS	DIONE		RHEA	
1947	°	°	°	°	°	°	°	°	°
Jan. — 3	317.040	110.02	197.885	90.0	323.312	333.464	311.8	15.319	213.4
+13	308.848	85.82	81.588	328.3	134.482	278.022	255.0	210.359	48.4
29	300.656	61.62	325.289	206.6	305.652	222.580	198.3	45.398	243.4
Febr. 14	292.465	37.42	208.989	84.9	116.821	167.139	141.4	240.438	78.4
März 2	284.274	13.21	92.688	323.2	287.991	111.697	84.6	75.477	273.4
18	276.084	349.00	336.385	201.5	99.161	56.256	27.9	270.517	108.4
April 3	267.895	324.80	220.082	79.8	270.331	0.814	331.0	105.556	303.4
19	259.706	300.60	103.777	318.1	81.501	305.373	274.3	300.596	138.4
Mai 5	251.517	276.40	347.471	196.4	252.671	249.931	217.5	135.635	333.3
21	243.330	252.20	231.164	74.7	63.841	194.490	160.7	330.675	168.3
Juni 6	235.143	227.99	114.856	312.9	235.011	139.049	104.0	165.714	3.3
Okt. 12	169.665	34.41	264.368	59.2	164.368	55.520	9.6	286.031	123.2
28	161.483	10.21	148.055	297.5	335.537	0.079	312.8	121.070	318.2
Nov. 13	153.302	346.02	31.742	175.8	146.707	304.639	256.1	316.109	153.1
29	145.121	321.82	275.428	54.1	317.876	249.198	199.3	151.149	348.1
Dez. 15	136.941	297.63	159.115	292.3	129.046	193.757	142.5	346.188	183.1
31	128.761	273.43	42.802	170.6	300.215	138.316	85.7	181.228	18.1
47	120.582	249.24	286.488	48.9	111.384	82.875	29.0	16.267	213.0

0h Weltzeit	L	M	L	M	e	log a	L	M
	TITAN		HYPERION				JAPETUS	
1947	°	°	°	°			°	°
Jan. — 3	266.770	83.94	281.466	128.64	0.11992	2.32964	142.490	187.91
+13	268.003	85.15	193.510	41.39	0.12001	2.32974	215.099	260.51
29	269.236	86.36	105.456	314.04	0.12018	2.32987	287.709	333.11
Febr. 14	270.468	87.57	17.271	226.57	0.12042	2.33003	0.318	45.71
März 2	271.701	88.78	288.930	138.93	0.12075	2.33021	72.927	118.31
18	272.934	89.99	200.411	51.10	0.12114	2.33041	145.537	190.92
April 3	274.167	91.20	111.695	323.08	0.12155	2.33062	218.146	263.52
19	275.399	92.40	22.766	234.84	0.12198	2.33086	290.756	336.12
Mai 5	276.632	93.61	293.618	146.35	0.12243	2.33108	3.365	48.72
21	277.865	94.82	204.249	57.62	0.12289	2.33133	75.974	121.32
Juni 6	279.098	96.03	114.658	328.68	0.12334	2.33155	148.584	193.93
Okt. 12	288.960	105.71	111.924	330.83	0.12458	2.33256	9.459	54.74
28	290.192	106.92	21.231	240.74	0.12433	2.33254	82.069	127.34
Nov. 13	291.425	108.13	290.567	150.69	0.12400	2.33248	154.678	199.95
29	292.658	109.33	199.970	60.71	0.12353	2.33238	227.287	272.55
Dez. 15	293.891	110.54	109.471	330.83	0.12299	2.33226	299.897	345.15
31	295.123	111.75	19.099	241.07	0.12237	2.33209	12.506	57.75
47	296.356	112.96	288.882	151.48	0.12167	2.33191	85.116	130.35

Bewegung der mittleren Länge *L* und der mittleren Anomalie *M*

Zeit	Mimas		Enceladus		Tethys	Dione		Rhea		Titan		Japetus	
	L	*M*	*L*	*M*	*L*	*L*	*M*	*L*	*M*	*L*	*M*	*L*	*M*
d	°	°	°	°	°	°	°	°	°	°	°	°	°
1	21,9884	20,988	262,7309	262,39	190,6982	131,5349	131,45	79,6900	79,69	22,5770	22,576	4,5381	4,537
2	43,9769	41,975	165,4619	164,79	21,3963	263,0699	262,90	159,3799	159,38	45,1541	45,151	9,0762	9,075
3	65,9653	62,963	68,1928	67,18	212,0945	34,6048	34,35	239,0699	239,06	67,7311	67,727	13,6143	13,612
4	87,9538	83,950	330,9238	329,58	42,7926	166,1398	165,80	318,7599	318,75	90,3081	90,302	18,1524	18,150
5	109,9422	104,938	233,6547	231,97	233,4908	297,6747	297,25	38,4498	38,44	112,8852	112,878	22,6905	22,687
6	131,9306	125,925	136,3856	134,36	64,1889	69,2096	68,70	118,1398	118,13	135,4622	135,454	27,2286	27,225
7	153,9191	146,913	39,1166	36,76	254,8871	200,7446	200,15	197,8298	197,81	158,0392	158,029	31,7667	31,762
8	175,9075	167,900	301,8475	299,15	85,5852	332,2795	331,60	277,5197	277,50	180,6162	180,605	36,3047	36,300
9	197,8959	188,888	204,5784	201,54	276,2834	103,8144	103,05	357,2097	357,19	203,1933	203,181	40,8428	40,837
10	219,8844	209,875	107,3094	103,94	106,9816	235,3494	234,50	76,8997	76,88	225,7703	225,756	45,3809	45,375
11	241,8728	230,863	10,0403	6,33	297,6797	6,8843	5,95	156,5897	156,56	248,3473	248,332	49,9190	49,912
12	263,8613	251,850	272,7713	268,72	128,3779	138,4193	137,40	236,2796	236,25	270,9244	270,907	54,4571	54,450
13	285,8497	272,838	175,5022	171,12	319,0760	269,9542	268,85	315,9696	315,94	293,5014	293,483	58,9952	58,987
14	307,8381	293,825	78,2331	73,51	149,7742	41,4891	40,30	35,6596	35,63	316,0784	316,059	63,5333	63,525
15	329,8266	314,813	340,9641	335,91	340,4723	173,0241	171,75	115,3495	115,31	338,6555	338,634	68,0714	68,062
16	351,8150	335,800	243,6950	238,30	171,1705	304,5590	303,20	195,0395	195,00	361,2325	361,210	72,6095	72,600
d	°	°	°	°	°	°	°	°	°	°	°	°	°
0,1	38,1988	38,098	26,2731	26,24	19,0698	13,1535	13,14	7,9690	7,97	2,2577	2,258	0,4538	0,454
0,2	76,3977	76,198	52,5462	52,48	38,1396	26,3070	26,29	15,9380	15,94	4,5154	4,515	0,9076	0,907
0,3	114,5965	114,296	78,8193	78,72	57,2094	39,4605	39,43	23,9070	23,91	6,7731	6,773	1,3614	1,361
0,4	152,7954	152,395	105,0924	104,96	76,2793	52,6140	52,58	31,8760	31,88	9,0308	9,030	1,8152	1,815
0,5	190,9942	190,494	131,3655	131,20	95,3491	65,7675	65,72	39,8450	39,84	11,2885	11,288	2,2690	2,269
0,6	229,1931	228,593	157,6386	157,44	114,4189	78,9210	78,87	47,8140	47,81	13,5462	13,545	2,7229	2,722
0,7	267,3919	266,691	183,9117	183,68	133,4887	92,0745	92,01	55,7830	55,78	15,8039	15,803	3,1767	3,176
0,8	305,5908	304,790	210,1848	209,92	152,5585	105,2279	105,16	63,7520	63,75	18,0616	18,060	3,6305	3,630
0,9	343,7896	342,889	236,4578	236,15	171,6283	118,3814	118,30	71,7210	71,72	20,3193	20,318	4,0843	4,084
1,0	381,9884	380,988	262,7309	262,39	190,6982	131,5349	131,45	79,6900	79,69	22,5770	22,576	4,5381	4,537
d	°	°	°	°	°	°	°	°	°	°	°	°	°
0,01	3,8199	3,810	2,6273	2,62	1,9070	1,3153	1,31	0,7969	0,80	0,2258	0,226	0,0454	0,045
0,02	7,6398	7,620	5,2546	5,25	3,8140	2,6307	2,63	1,5938	1,59	0,4515	0,452	0,0908	0,091
0,03	11,4596	11,430	7,8820	7,87	5,7209	3,9460	3,94	2,3907	2,39	0,6773	0,677	0,1361	0,136
0,04	15,2795	15,239	10,5093	10,50	7,6279	5,2614	5,26	3,1876	3,19	0,9031	0,903	0,1815	0,181
0,05	19,0994	19,049	13,1366	13,12	9,5349	6,5767	6,57	3,9845	3,98	1,1289	1,129	0,2269	0,227
0,06	22,9193	22,859	15,7639	15,74	11,4419	7,8921	7,89	4,7814	4,78	1,3546	1,355	0,2723	0,272
0,07	26,7392	26,669	18,3913	18,37	13,3489	9,2074	9,20	5,5783	5,58	1,5804	1,580	0,3177	0,318
0,08	30,5591	30,479	21,0186	20,99	15,2559	10,5228	10,52	6,3752	6,38	1,8062	1,806	0,3630	0,363
0,09	34,3790	34,289	23,6459	23,62	17,1628	11,8381	11,83	7,1721	7,17	2,0319	2,032	0,4084	0,408
0,10	38,1988	38,099	26,2732	26,24	19,0698	13,1535	13,14	7,9690	7,97	2,2577	2,258	0,4538	0,454
d	°	°	°	°	°	°	°	°	°	°	°	°	°
0,001	0,3820	0,381	0,2627	0,26	0,1907	0,1315	0,13	0,0797	0,08	0,0226	0,023	0,0045	0,005
0,002	0,7640	0,762	0,5255	0,52	0,3814	0,2631	0,26	0,1594	0,16	0,0452	0,045	0,0091	0,009
0,003	1,1460	1,143	0,7882	0,79	0,5721	0,3946	0,39	0,2391	0,24	0,0677	0,068	0,0136	0,014
0,004	1,5280	1,524	1,0509	1,05	0,7628	0,5261	0,53	0,3188	0,32	0,0903	0,090	0,0182	0,018
0,005	1,9099	1,905	1,3137	1,31	0,9535	0,6577	0,66	0,3984	0,40	0,1129	0,113	0,0227	0,023
0,006	2,2919	2,286	1,5764	1,57	1,1442	0,7892	0,79	0,4781	0,48	0,1355	0,135	0,0272	0,027
0,007	2,6739	2,667	1,8391	1,84	1,3349	0,9207	0,92	0,5578	0,56	0,1580	0,158	0,0318	0,032
0,008	3,0559	3,048	2,1019	2,10	1,5256	1,0523	1,05	0,6375	0,64	0,1806	0,181	0,0363	0,036
0,009	3,4379	3,429	2,3646	2,36	1,7163	1,1838	1,18	0,7172	0,72	0,2032	0,203	0,0408	0,041
0,010	3,8199	3,810	2,6273	2,62	1,9070	1,3153	1,31	0,7969	0,80	0,2258	0,226	0,0454	0,045

Saturnstrabanten 1947

0^h Weltzeit	ϑ					γ	N	I	ω
	Mimas	Encel.	Tethys	Dione	Rhea	Rhea	Saturnsring		
1947	°	°	°	°	°	°	°	°	°
Jan. − 3	81.1	107.9	131.6	83.9	161.6	21.25	128.290	6.703	41.584
+13	65.1	101.2	128.4	82.6	161.2	21.24	128.292	6.703	41.583
29	49.1	94.6	125.3	81.2	160.8	21.23	128.293	6.703	41.582
Febr. 14	33.1	87.9	122.1	79.8	160.3	21.22	128.295	6.702	41.580
März 2	17.1	81.2	118.9	78.5	159.9	21.20	128.297	6.702	41.579
18	1.1	74.5	115.8	77.1	159.5	21.19	128.299	6.702	41.578
April 3	345.1	67.8	112.6	75.8	159.1	21.18	128.301	6.702	41.577
19	329.1	61.1	109.4	74.4	158.6	21.16	128.303	6.702	41.575
Mai 5	313.1	54.4	106.3	73.0	158.2	21.15	128.305	6.701	41.574
21	297.1	47.7	103.1	71.7	157.8	21.14	128.306	6.701	41.573
Juni 6	281.1	41.0	99.9	70.3	157.3	21.13	128.308	6.701	41.571
22	265.1	34.3	96.8	68.9	156.9	21.12	128.310	6.701	41.570
Juli 8	249.1	27.7	93.6	67.6	156.4	21.10	128.312	6.701	41.569
24	233.1	21.0	90.4	66.2	156.0	21.09	128.314	6.700	41.567
Aug. 9	217.1	14.3	87.3	64.9	155.6	21.08	128.316	6.700	41.566
25	201.1	7.6	84.1	63.5	155.2	21.06	128.318	6.700	41.565
Sept. 10	185.1	0.9	80.9	62.2	154.7	21.05	128.319	6.700	41.564
26	169.1	354.2	77.8	60.8	154.3	21.04	128.321	6.700	41.562
Okt. 12	153.1	347.5	74.6	59.4	153.9	21.02	128.323	6.699	41.561
28	137.1	340.8	71.4	58.1	153.4	21.01	128.325	6.699	41.560
Nov. 13	121.1	334.1	68.3	56.7	153.0	21.00	128.327	6.699	41.558
29	105.1	327.4	65.1	55.4	152.6	20.99	128.329	6.699	41.557
Dez. 15	89.0	320.7	61.9	54.0	152.1	20.97	128.330	6.699	41.556
31	73.0	314.0	58.8	52.6	151.7	20.96	128.332	6.698	41.554
47	57.0	307.4	55.6	51.3	151.3	20.94	128.334	6.698	41.553

$\log \frac{1}{1+\zeta}$ in Einheiten der 5. Dezimale

$u - U$		Mimas	Encel.	Tethys	Dione	Rhea	$u - U$	
0°	360°	−6+	−7+	−9+	−11+	−16+	180°	180°
10	350	−6+	−7+	−9+	−11+	−16+	170	190
20	340	−5+	−7+	−8+	−11+	−15+	160	200
30	330	−5+	−6+	−8+	−10+	−14+	150	210
40	320	−4+	−6+	−7+	− 9+	−12+	140	220
50	310	−3+	−5+	−6+	− 8+	−10+	130	230
60	300	−3+	−4+	−4+	− 6+	− 8+	120	240
70	290	−2+	−3+	−3+	− 4+	− 6+	110	250
80	280	−1+	−1+	−2+	− 2+	− 3+	100	260
90	270	0	0	0	0	0	90	270

0^h Weltzeit		TITAN *U*	TITAN *B*	TITAN *P*	HYPERION *U*	HYPERION *B*	HYPERION *P*	JAPETUS *U*	JAPETUS *B*	JAPETUS *P*
1947		°	°	°	°	°	°	°	°	°
Jan.	−3	8.336	−18.032	−7.019	4.424	−18.486	−7.228	80.271	−4.625	−2.558
	+5	7.817	18.249	7.035	3.907	18.705	7.240	79.761	4.803	2.693
	13	7.236	18.486	7.052	3.329	18.943	7.252	79.192	4.999	2.844
	21	6.614	18.735	7.069	2.709	19.193	7.264	78.584	5.204	3.005
	29	5.974	18.986	7.085	2.071	19.446	7.276	77.960	5.412	3.171
Febr.	6	5.340	−19.231	−7.100	1.439	−19.693	−7.286	77.344	−5.616	−3.334
	14	4.736	19.461	7.114	0.837	19.924	7.295	76.758	5.808	3.490
	22	4.183	19.668	7.126	0.286	20.132	7.302	76.222	5.982	3.632
März	2	3.701	19.846	7.136	359.806	20.312	7.308	75.757	6.133	3.755
	10	3.307	19.991	7.144	359.415	20.457	7.313	75.377	6.256	3.855
	18	3.014	−20.099	−7.149	359.125	−20.565	−7.316	75.095	−6.347	−3.930
	26	2.831	20.167	7.152	358.944	20.634	7.318	74.918	6.407	3.977
April	3	2.763	20.194	7.153	358.879	20.661	7.319	74.853	6.429	3.994
	11	2.812	20.181	7.153	358.932	20.647	7.319	74.901	6.418	3.982
	19	2.976	20.127	7.151	359.100	20.592	7.318	75.059	6.373	3.940
	27	3.253	−20.034	−7.146	359.380	−20.498	−7.315	75.326	−6.295	−3.870
Mai	5	3.637	19.903	7.139	359.767	20.366	7.312	75.696	6.185	3.772
	13	4.120	19.736	7.130	0.254	20.198	7.307	76.163	6.045	3.649
	21	4.694	19.535	7.119	0.833	19.995	7.300	76.719	5.878	3.502
	29	5.351	19.303	7.105	1.495	19.760	7.292	77.356	5.686	3.333
Juni	6	6.082	−19.041	−7.088	2.230	−19.495	−7.281	78.067	−5.471	−3.145
	14	6.877	18.752	7.068	3.029	19.203	7.267	78.841	5.235	2.940
	22	7.727	18.439	7.045	3.883	18.887	7.251	79.671	4.982	2.720
	30	8.622	18.104	7.019	4.783	18.549	7.233	80.548	4.715	2.488
Juli	8	9.554	17.751	6.991	5.718	18.192	7.212	81.463	4.434	2.245
	16	10.513	−17.383	−6.960	6.681	−17.820	−7.188	82.409	−4.144	−1.995
	24	11.491	17.002	6.926	7.663	17.435	7.161	83.376	3.847	1.739
Aug.	1	12.479	16.612	6.890	8.654	17.040	7.133	84.356	3.546	1.481
	9	13.468	16.217	6.852	9.647	16.640	7.102	85.341	3.244	1.221
	17	14.450	15.820	6.812	10.633	16.239	7.069	86.322	2.943	0.963
	25	15.417	−15.424	−6.771	11.603	−15.839	−7.035	87.291	−2.646	−0.708
Sept.	2	16.360	15.035	6.729	12.549	15.445	6.999	88.238	2.357	0.460
	10	17.271	14.657	6.687	13.463	15.062	6.964	89.157	2.078	−0.220
	18	18.142	14.293	6.646	14.337	14.693	6.928	90.037	1.812	+0.010
	26	18.963	13.948	6.606	15.161	14.344	6.893	90.869	1.563	0.226
Okt.	4	19.727	−13.627	−6.567	15.927	−14.019	−6.860	91.645	−1.334	+0.427
	12	20.425	13.334	6.531	16.628	13.722	6.828	92.355	1.127	0.611
	20	21.048	13.074	6.498	17.254	13.459	6.799	92.990	0.945	0.775
	28	21.589	12.852	6.469	17.797	13.233	6.774	93.541	0.791	0.917
Nov.	5	22.039	12.671	6.444	18.250	13.050	6.752	94.000	0.669	1.035
	13	22.392	−12.535	−6.425	18.606	−12.912	−6.735	94.360	−0.579	+1.128
	21	22.641	12.448	6.412	18.858	12.824	6.723	94.614	0.525	1.193
	29	22.783	12.412	6.405	19.003	12.786	6.717	94.756	0.507	1.229
Dez.	7	22.815	−12.428	−6.404	19.038	−12.800	−6.716	94.786	−0.527	+1.237
	15	22.736	12.494	6.409	18.963	12.867	6.721	94.701	0.582	1.215
	23	22.549	12.610	6.421	18.779	12.984	6.732	94.505	0.673	1.165
	31	22.260	−12.773	−6.438	18.493	−13.148	−6.748	94.204	−0.797	+1.088

0h Weltzeit	HYPERION $\alpha_{tr}-\alpha_{pl}$		$\delta_{tr}-\delta_{pl}$	
1947	s	s	"	"
Jan −1	−13.1	+ 7.8	− 86	− 8
+1	− 5.3	+ 9.2	− 94	+16
3	+ 3.9	+ 8.1	− 78	+37
5	+12.0	+ 4.2	− 41	+50
7	+16.2	− 2.2	+ 9	+47
9	+14.0	− 8.8	+ 56	+20
11	+ 5.2	−11.4	+ 76	−17
13	− 6.2	− 8.8	+ 59	−43
15	−15.0	− 3.5	+ 16	−50
17	−18.5	+ 2.1	− 34	−41
19	−16.4	+ 6.5	− 75	−21
21	− 9.9	+ 8.9	− 96	+ 2
23	− 1.0	+ 9.1	− 94	+27
25	+ 8.1	+ 6.7	− 67	+46
27	+14.8	+ 1.5	− 21	+54
29	+16.3	− 5.6	+ 33	+38
31	+10.7	−10.7	+ 71	+ 5
Febr. 2	0.0	−10.9	+ 76	−33
4	−10.9	− 6.5	+ 43	−50
6	−17.4	− 0.7	− 7	−49
8	−18.1	+ 4.3	− 56	−33
10	−13.8	+ 7.8	− 89	−11
12	− 6.0	+ 9.3	−100	+13
14	+ 3.3	+ 8.3	− 87	+38
16	+11.6	+ 4.6	− 49	+52
18	+16.2	− 1.7	+ 3	+50
20	+14.5	− 8.3	+ 53	+26
22	+ 6.2	−11.3	+ 79	−13
24	− 5.1	− 9.1	+ 66	−43
26	−14.2	− 3.9	+ 23	−52
28	−18.1	+ 1.6	− 29	−44
März 2	−16.5	+ 6.0	− 73	−24
4	−10.5	+ 8.6	− 97	− 1
6	− 1.9	+ 9.0	− 98	+25
8	+ 7.1	+ 6.8	− 73	+45
10	+13.9	+ 2.1	− 28	+53
12	+16.0	− 4.6	+ 25	+43
14	+11.4	−10.0	+ 68	+ 9
16	+ 1.4	−10.7	+ 77	−27
18	− 9.3		+ 50	

0h Weltzeit	HYPERION $\alpha_{tr}-\alpha_{pl}$		$\delta_{tr}-\delta_{pl}$	
1947	s	s	"	"
März 18	− 9.3	− 6.8	+50	−49
20	−16.1	− 1.4	+ 1	−49
22	−17.5	+ 3.5	−48	−36
24	−14.0	+ 7.0	−84	−14
26	− 7.0	+ 8.7	−98	+ 9
28	+ 1.7	+ 8.2	−89	+33
30	+ 9.9	+ 5.0	−56	+49
April 1	+14.9	− 0.5	− 7	+50
3	+14.4	− 6.8	+43	+31
5	+ 7.6	−10.5	+74	− 6
7	− 2.9	− 9.2	+68	−37
9	−12.1	− 4.6	+31	−49
11	−16.7	+ 0.6	−18	−44
13	−16.1	+ 4.8	−62	−27
15	−11.3	+ 7.6	−89	− 5
17	− 3.7	+ 8.4	−94	+18
19	+ 4.7	+ 7.0	−76	+38
21	+11.7	+ 3.2	−38	+50
23	+14.9	− 2.8	+12	+44
25	+12.1	− 8.4	+56	+17
27	+ 3.7	−10.1	+73	−18
29	− 6.4	− 7.4	+55	−42
Mai 1	−13.8	− 2.7	+13	−46
3	−16.5	+ 2.1	−33	−37
5	−14.4	+ 5.7	−70	−19
7	− 8.7	+ 7.8	−89	+ 3
9	− 0.9	+ 7.9	−86	+24
11	+ 7.0	+ 5.8	−62	+42
13	+12.8	+ 1.2	−20	+47
15	+14.0	− 4.6	+27	+35
17	+ 9.4	− 9.1	+62	+ 5
19	+ 0.3	− 9.3	+67	−27
21	− 9.0	− 5.7	+40	−42
23	−14.7	− 1.1	− 2	−42
25	−15.8	+ 3.2	−44	−30
27	−12.6	+ 6.2	−74	−11
29	− 6.4	+ 7.7	−85	+ 9
31	+ 1.3	+ 7.3	−76	+29
Juni 2	+ 8.6	+ 4.6	−47	+42
4	+13.2		− 5	

0h Weltzeit	HYPERION $\alpha_{tr}-\alpha_{pl}$		$\delta_{tr}-\delta_{pl}$	
1947	s	s	"	"
Okt. 12	+13.1	− 3.5	+20	+25
14	+ 9.6	− 8.2	+45	+ 3
16	+ 1.4	− 8.9	+48	−18
18	− 7.5	− 6.4	+30	−30
20	−13.9	− 2.4	0	−29
22	−16.3	+ 1.7	−29	−22
24	−14.6	+ 5.3	−51	−10
26	− 9.3	+ 7.5	−61	+ 5
28	− 1.8	+ 8.0	−56	+20
30	+ 6.2	+ 6.0	−36	+32
Nov. 1	+12.2	+ 0.9	− 4	+33
3	+13.1	− 5.2	+29	+20
5	+ 7.9	− 9.1	+49	− 4
7	− 1.2	− 8.7	+45	−23
9	− 9.9	− 5.6	+22	−30
11	−15.5	− 1.4	− 8	−29
13	−16.9	+ 2.9	−37	−19
15	−14.0	+ 6.2	−56	− 6
17	− 7.8	+ 8.2	−62	+ 9
19	+ 0.4	+ 8.1	−53	+25
21	+ 8.5	+ 5.0	−28	+35
23	+13.5	− 0.8	+ 7	+31
25	+12.7	− 7.0	+38	+13
27	+ 5.7	− 9.8	+51	−10
29	− 4.1	− 8.4	+41	−27
Dez. 1	−12.5	− 4.5	+14	−32
3	−17.0	− 0.1	−18	−27
5	−17.1	+ 4.2	−45	−16
7	−12.9	+ 7.2	−61	− 2
9	− 5.7	+ 8.9	−63	+15
11	+ 3.2	+ 7.8	−48	+30
13	+11.0	+ 3.5	−18	+37
15	+14.5	− 3.1	+19	+28
17	+11.4	− 8.6	+47	+ 6
19	+ 2.8	−10.1	+53	−18
21	− 7.3	− 7.6	+35	−31
23	−14.9	− 3.3	+ 4	−32
25	−18.2	+ 1.5	−28	−26
27	−16.7	+ 5.5	−54	−13
29	−11.2	+ 8.3	−67	+ 4
31	− 2.9		−63	

0^h Weltzeit	JAPETUS $\alpha_{tr} - \alpha_{pl}$	Diff.	JAPETUS $\delta_{tr} - \delta_{pl}$	Diff.
1947	s	s	″	″
Jan. −1	+40.7		+10	
		+1.7		+ 8
+1	+42.4		+18	
		+0.7		+ 9
3	+43.1		+27	
		−0.3		+ 8
5	+42.8		+35	
		−1.4		+ 7
7	+41.4		+42	
		−2.4		+ 6
9	+39.0		+48	
		−3.4		+ 6
11	+35.6		+54	
		−4.3		+ 4
13	+31.3		+58	
		−5.1		+ 3
15	+26.2		+61	
		−5.8		+ 1
17	+20.4		+62	
		−6.4		− 1
19	+14.0		+61	
		−6.8		− 2
21	+ 7.2		+59	
		−6.9		− 4
23	+ 0.3		+55	
		−7.0		− 6
25	− 6.7		+49	
		−6.8		− 7
27	−13.5		+42	
		−6.4		− 8
29	−19.9		+34	
		−5.8		−10
31	−25.7		+24	
		−5.2		−11
Febr. 2	−30.9		+13	
		−4.3		−11
4	−35.2		+ 2	
		−3.2		−11
6	−38.4		− 9	
		−2.1		−11
8	−40.5		−20	
		−1.0		−12
10	−41.5		−32	
		+0.2		−10
12	−41.3		−42	
		+1.3		− 9
14	−40.0		−51	
		+2.2		− 8
16	−37.8		−59	
		+3.7		− 6
18	−34.1		−65	
		+4.3		− 4
20	−29.8		−69	
		+5.1		− 3
22	−24.7		−72	
		+5.8		− 1
24	−18.9		−73	
		+6.1		+ 1
26	−12.8		−72	
		+6.4		+ 3
28	− 6.4		−69	
		+6.7		+ 5
März 2	+ 0.3		−64	
		+6.5		+ 7
4	+ 6.8		−57	
		+6.4		+ 8
6	+13.2		−49	
		+6.0		+ 9
8	+19.2		−40	
		+5.5		+10
10	+24.7		−30	
		+4.9		+11
12	+29.6		−19	
		+4.2		+11
14	+33.8		− 8	
		+3.3		+12
16	+37.1		+ 4	
		+2.5		+12
18	+39.6		+16	

0^h Weltzeit	JAPETUS $\alpha_{tr} - \alpha_{pl}$	Diff.	JAPETUS $\delta_{tr} - \delta_{pl}$	Diff.
1947	s	s	″	″
März 18	+39.6		+16	
		+1.5		+11
20	+41.1		+27	
		+0.6		+10
22	+41.7		+37	
		−0.4		+ 9
24	+41.3		+46	
		−1.4		+ 9
26	+39.9		+55	
		−2.4		+ 7
28	+37.5		+62	
		−3.2		+ 6
30	+34.3		+68	
		−4.0		+ 4
April 1	+30.3		+72	
		−4.8		+ 2
3	+25.5		+74	
		−5.3		0
5	+20.2		+74	
		−5.8		− 2
7	+14.4		+72	
		−6.2		− 4
9	+ 8.2		+68	
		−6.3		− 5
11	+ 1.9		+63	
		−6.3		− 7
13	− 4.4		+56	
		−6.1		− 8
15	−10.5		+48	
		−5.8		−10
17	−16.3		+38	
		−5.3		−10
19	−21.6		+28	
		−4.6		−11
21	−26.2		+17	
		−4.0		−11
23	−30.2		+ 6	
		−3.1		−11
25	−33.3		− 5	
		−2.2		−11
27	−35.5		−16	
		−1.2		−10
29	−36.7		−26	
		−0.2		−10
Mai 1	−36.9		−36	
		+0.8		− 8
3	−36.1		−44	
		+1.6		− 7
5	−34.5		−51	
		+2.5		− 6
7	−32.0		−57	
		+3.4		− 4
9	−28.6		−61	
		+4.0		− 2
11	−24.6		−63	
		+4.6		− 1
13	−20.0		−64	
		+5.0		+ 1
15	−15.0		−63	
		+5.4		+ 2
17	− 9.6		−61	
		+5.5		+ 4
19	− 4.1		−57	
		+5.6		+ 5
21	+ 1.5		−52	
		+5.5		+ 6
23	+ 7.0		−46	
		+5.3		+ 6
25	+12.3		−40	
		+5.0		+ 8
27	+17.3		−32	
		+4.6		+ 8
29	+21.9		−24	
		+4.1		+ 8
31	+26.0		−16	
		+3.5		+ 9
Juni 2	+29.5		− 7	
		+2.8		+ 8
4	+32.3		+ 1	

0^h Weltzeit	JAPETUS $\alpha_{tr} - \alpha_{pl}$	Diff.	JAPETUS $\delta_{tr} - \delta_{pl}$	Diff.
1947	s	s	″	″
Okt. 12	−34.2		+ 4	
		+1.2		−2
14	−33.0		+ 2	
		+2.0		−1
16	−31.0		+ 1	
		+2.8		−1
18	−28.2		0	
		+3.5		−1
20	−24.7		− 1	
		+4.1		−1
22	−20.6		− 2	
		+4.6		−2
24	−16.0		− 4	
		+5.0		−1
26	−11.0		− 5	
		+5.3		−1
28	− 5.7		− 6	
		+5.5		−1
30	− 0.2		− 7	
		+5.5		−1
Nov. 1	+ 5.3		− 8	
		+5.4		−1
3	+10.7		− 9	
		+5.3		−1
5	+16.0		−10	
		+4.9		−1
7	+20.9		−11	
		+4.5		0
9	+25.4		−11	
		+3.9		−1
11	+29.3		−12	
		+3.3		0
13	+32.6		−12	
		+2.6		0
15	+35.2		−12	
		+1.8		0
17	+37.0		−12	
		+1.0		0
19	+38.0		−12	
		+0.1		+1
21	+38.1		−11	
		−0.8		+1
23	+37.3		−10	
		−1.7		+1
25	+35.6		− 9	
		−2.6		+1
27	+33.0		− 8	
		−3.5		+2
29	+29.5		− 6	
		−4.2		+2
Dez. 1	+25.3		− 4	
		−4.9		+2
3	+20.4		− 2	
		−5.4		+2
5	+15.0		0	
		−5.9		+2
7	+ 9.1		+ 2	
		−6.2		+2
9	+ 2.9		+ 4	
		−6.3		+2
11	− 3.4		+ 6	
		−6.2		+2
13	− 9.6		+ 8	
		−6.1		+2
15	−15.7		+10	
		−5.7		+1
17	−21.4		+11	
		−5.1		+1
19	−26.5		+12	
		−4.4		+1
21	−30.9		+13	
		−3.6		0
23	−34.5		+13	
		−2.7		0
25	−37.2		+13	
		−1.6		−1
27	−38.8		+12	
		−0.6		−1
29	−39.4		+11	
		+0.5		−2
31	−38.9		+ 9	

Östliche Elongationen (in Weltzeit)

MIMAS

		h			h			h			h			h
Jan.	0	5.6	Febr.	16	8.3	April	4	11.2	Mai	21	14.3	Nov.	18	14.1
	1	4.2		17	6.9		5	9.8		22	12.9		19	12.7
	2	2.9		18	5.5		6	8.4		23	11.6		20	11.3
	3	1.5		19	4.2		7	7.0		24	10.2		21	9.9
	4	0.1		20	2.8		8	5.7		25	8.8		22	8.6
	4	22.7		21	1.4		9	4.3		26	7.4		23	7.2
	5	21.3		22	0.0		10	2.9		27	6.1		24	5.8
	6	19.9		22	22.6		11	1.5		28	4.7		25	4.4
	7	18.5		23	21.2		12	0.2		29	3.3		26	3.0
	8	17.1		24	19.8		12	22.8		30	2.0		27	1.7
	9	15.8		25	18.4		13	21.4		31	0.6		28	0.3
	10	14.4		26	17.1		14	20.0		31	23.2		28	22.9
	11	13.0		27	15.7		15	18.6	Juni	1	21.9		29	21.5
	12	11.6		28	14.3		16	17.3		2	20.5		30	20.1
	13	10.2	März	1	12.9		17	15.9				Dez.	1	18.7
	14	8.8		2	11.5		18	14.5					2	17.3
	15	7.4		3	10.1		19	13.1					3	15.9
	16	6.0		4	8.7		20	11.7			h		4	14.6
	17	4.6		5	7.3		21	10.3	Okt.	19	10.3		5	13.2
	18	3.3		6	5.9		22	9.0		20	8.9		6	11.8
	19	1.9		7	4.6		23	7.6		21	7.6		7	10.4
	20	0.5		8	3.2		24	6.2		22	6.2		8	9.1
	20	23.1		9	1.8		25	4.8		23	4.8		9	7.7
	21	21.7		10	0.4		26	3.5		24	3.4		10	6.3
	22	20.3		10	23.1		27	2.1		25	2.0		11	4.9
	23	18.9		11	21.7		28	0.7		26	0.7		12	3.5
	24	17.5		12	20.3		28	23.3		26	23.3		13	2.2
	25	16.2		13	18.9		29	22.0		27	21.9		14	0.8
	26	14.8		14	17.5		30	20.6		28	20.5		14	23.4
	27	13.4		15	16.2	Mai	1	19.2		29	19.1		15	22.0
	28	12.0		16	14.8		2	17.8		30	17.7		16	20.6
	29	10.6		17	13.4		3	16.5		31	16.3		17	19.2
	30	9.2		18	12.0		4	15.1	Nov.	1	14.9		18	17.8
	31	7.8		19	10.6		5	13.7		2	13.6		19	16.4
Febr.	1	6.4		20	9.2		6	12.3		3	12.2		20	15.1
	2	5.0		21	7.9		7	10.9		4	10.8		21	13.7
	3	3.7		22	6.5		8	9.6		5	9.4		22	12.3
	4	2.3		23	5.1		9	8.2		6	8.1		23	10.9
	5	0.9		24	3.7		10	6.8		7	6.7		24	9.6
	5	23.5		25	2.4		11	5.4		8	5.3		25	8.2
	6	22.2		26	1.0		12	4.1		9	3.9		26	6.8
	7	20.8		26	23.6		13	2.7		10	2.5		27	5.4
	8	19.4		27	22.2		14	1.3		11	1.2		28	4.0
	9	18.0		28	20.9		14	23.9		11	23.8		29	2.7
	10	16.6		29	19.5		15	22.6		12	22.4		30	1.3
	11	15.3		30	18.1		16	21.2		13	21.0		30	23.9
	12	13.9		31	16.7		17	19.8		14	19.6		31	22.5
	13	12.5	April	1	15.4		18	18.4		15	18.2			
	14	11.1		2	14.0		19	17.1		16	16.8			
	15	9.7		3	12.6		20	15.7		17	15.4			

Östliche Elongationen (in Weltzeit).

ENCELADUS

		h
Jan.	0	18.4
	2	3.2
	3	12.1
	4	21.0
	6	5.8
	7	14.7
	8	23.6
	10	8.5
	11	17.3
	13	2.2
	14	11.1
	15	19.9
	17	4.8
	18	13.7
	19	22.6
	21	7.4
	22	16.3
	24	1.2
	25	10.1
	26	18.9
	28	3.8
	29	12.7
	30	21.6
Febr.	1	6.4
	2	15.3
	4	0.2
	5	9.1
	6	17.9
	8	2.8
	9	11.7
	10	20.6
	12	5.4
	13	14.3
	14	23.2
	16	8.1
	17	17.0
	19	1.9
	20	10.7
	21	19.6
	23	4.5
	24	13.4
	25	22.3
	27	7.2
	28	16.0
März	2	0.9
	3	9.8

ENCELADUS

		h
März	4	18.7
	6	3.5
	7	12.4
	8	21.3
	10	6.2
	11	15.0
	12	23.9
	14	8.8
	15	17.7
	17	2.5
	18	11.4
	19	20.3
	21	5.2
	22	14.1
	23	23.0
	25	7.9
	26	16.8
	28	1.6
	29	10.5
	30	19.4
April	1	4.3
	2	13.2
	3	22.1
	5	7.0
	6	15.9
	8	0.8
	9	9.7
	10	18.6
	12	3.5
	13	12.3
	14	21.2
	16	6.1
	17	15.0
	18	23.9
	20	8.8
	21	17.7
	23	2.6
	24	11.5
	25	20.4
	27	5.3
	28	14.1
	29	23.0
Mai	1	7.9
	2	16.8
	4	1.7
	5	10.6

ENCELADUS

		h
Mai	6	19.5
	8	4.4
	9	13.3
	10	22.2
	12	7.1
	13	16.0
	15	0.9
	16	9.8
	17	18.7
	19	3.6
	20	12.5
	21	21.4
	23	6.3
	24	15.2
	26	0.1
	27	9.0
	28	17.9
	30	2.8
	31	11.6
Juni	1	20.5
	3	5.4

		h
Okt.	19	16.3
	21	1.2
	22	10.0
	23	18.9
	25	3.8
	26	12.7
	27	21.6
	29	6.5
	30	15.4
Nov.	1	0.3
	2	9.2
	3	18.1
	5	3.0
	6	11.8
	7	20.7
	9	5.6
	10	14.5
	11	23.4
	13	8.3
	14	17.2
	16	2.1

ENCELADUS

		h
Nov.	17	11.0
	18	19.8
	20	4.7
	21	13.6
	22	22.5
	24	7.4
	25	16.3
	27	1.1
	28	10.0
	29	18.9
Dez.	1	3.8
	2	12.7
	3	21.6
	5	6.4
	6	15.3
	8	0.2
	9	9.1
	10	18.0
	12	2.9
	13	11.7
	14	20.6
	16	5.5
	17	14.4
	18	23.2
	20	8.1
	21	17.0
	23	1.9
	24	10.7
	25	19.6
	27	4.5
	28	13.4
	29	22.2
	31	7.1

TETHYS

		h
Jan.	1	12.2
	3	9.5
	5	6.8
	7	4.0
	9	1.3
	10	22.6

TETHYS

		h
Jan.	12	19.9
	14	17.2
	16	14.5
	18	11.8
	20	9.1
	22	6.4
	24	3.6
	26	0.9
	27	22.2
	29	19.5
	31	16.8
Febr.	2	14.1
	4	11.4
	6	8.7
	8	5.9
	10	3.2
	12	0.5
	13	21.8
	15	19.1
	17	16.4
	19	13.7
	21	11.0
	23	8.3
	25	5.6
	27	2.9
März	1	0.2
	2	21.5
	4	18.8
	6	16.1
	8	13.4
	10	10.7
	12	8.0
	14	5.3
	16	2.6
	17	23.9
	19	21.2
	21	18.5
	23	15.8
	25	13.1
	27	10.4
	29	7.7
	31	5.0
April	2	2.3
	3	23.6
	5	20.9
	7	18.3

Östliche Elongationen (in Weltzeit)

TETHYS

		h
April	9	15.6
	11	12.9
	13	10.2
	15	7.5
	17	4.9
	19	2.2
	20	23.5
	22	20.8
	24	18.1
	26	15.4
	28	12.8
	30	10.1
Mai	2	7.4
	4	4.7
	6	2.0
	7	23.3
	9	20.7
	11	18.0
	13	15.3
	15	12.7
	17	10.0
	19	7.4
	21	4.7
	23	2.0
	24	23.3
	26	20.7
	28	18.0
	30	15.3
Juni	1	12.6
	3	10.0

		h
Okt.	19	7.3
	21	4.6
	23	1.9
	24	23.2
	26	20.6
	28	17.9
	30	15.2
Nov.	1	12.5
	3	9.8
	5	7.1
	7	4.5
	9	1.8

TETHYS

		h
Nov.	10	23.1
	12	20.4
	14	17.7
	16	15.0
	18	12.3
	20	9.6
	22	6.9
	24	4.3
	26	1.6
	27	22.9
	29	20.2
Dez.	1	17.5
	3	14.8
	5	12.1
	7	9.4
	9	6.7
	11	4.0
	13	1.3
	14	22.6
	16	19.9
	18	17.2
	20	14.5
	22	11.8
	24	9.1
	26	6.4
	28	3.7
	30	1.0
	31	22.3

DIONE

		h
Jan.	0	16.8
	3	10.5
	6	4.1
	8	21.8
	11	15.4
	14	9.1
	17	2.7
	19	20.3
	22	14.0
	25	7.6
	28	1.3
	30	18.9
Febr.	2	12.5

DIONE

		h
Febr.	5	6.2
	7	23.8
	10	17.5
	13	11.1
	16	4.8
	18	22.5
	21	16.2
	24	9.8
	27	3.5
März	1	21.1
	4	14.8
	7	8.5
	10	2.1
	12	19.8
	15	13.4
	18	7.1
	21	0.8
	23	18.5
	26	12.2
	29	5.8
	31	23.5
April	3	17.2
	6	10.9
	9	4.6
	11	22.3
	14	16.0
	17	9.7
	20	3.4
	22	21.1
	25	14.8
	28	8.5
Mai	1	2.3
	3	20.0
	6	13.7
	9	7.4
	12	1.1
	14	18.8
	17	12.6
	20	6.3
	23	0.0
	25	17.7
	28	11.4
	31	5.2
Juni	2	22.9

DIONE

		h
Okt.	17	22.0
	20	15.7
	23	9.5
	26	3.2
	28	20.9
	31	14.6
Nov.	3	8.3
	6	2.0
	8	19.7
	11	13.4
	14	7.1
	17	0.8
	19	18.5
	22	12.2
	25	5.9
	27	23.6
	30	17.3
Dez.	3	11.0
	6	4.7
	8	22.3
	11	16.0
	14	9.6
	17	3.3
	19	21.0
	22	14.7
	25	8.3
	28	2.0
	30	19.6
	33	13.3

RHEA

		h
Jan.	2	13.2
	7	1.6
	11	13.9
	16	2.2
	20	14.5
	25	2.8
	29	15.1
Febr.	3	3.4
	7	15.8

RHEA

		h
Febr.	12	4.1
	16	16.4
	21	4.7
	25	17.1
März	2	5.4
	6	17.8
	11	6.2
	15	18.5
	20	6.9
	24	19.3
	29	7.7
April	2	20.1
	7	8.5
	11	21.0
	16	9.4
	20	21.9
	25	10.4
	29	22.9
Mai	4	11.3
	8	23.8
	13	12.3
	18	0.9
	22	13.4
	27	1.9
	31	14.4
Juni	5	3.0

		h
Okt.	18	20.1
	23	8.6
	27	21.1
Nov.	1	9.6
	5	22.1
	10	10.6
	14	23.1
	19	11.5
	24	0.0
	28	12.4
Dez.	3	0.8
	7	13.2
	12	1.6
	16	14.0
	21	2.4
	25	14.8
	30	3.1
	34	15.5

Elongationen und Konjunktionen (in Weltzeit)

TITAN

		h	
Jan.	1	13.1	Ob. Konj.
	5	15.7	Östl. El.
	9	11.3	Unt. Konj.
	13	7.4	Westl. El.
	17	10.5	Ob. Konj.
	21	13.1	Östl. El.
	25	8.7	Unt. Konj.
	29	4.7	Westl. El.
Febr.	2	7.8	Ob. Konj.
	6	10.4	Östl. El.
	10	6.1	Unt. Konj.
	14	2.1	Westl. El.
	18	5.1	Ob. Konj.
	22	7.9	Östl. El.
	26	3.8	Unt. Konj.
März	1	23.7	Westl. El.
	6	2.7	Ob. Konj.
	10	5.7	Östl. El.
	14	1.7	Unt. Konj.
	17	21.7	Westl. El.
	22	0.8	Ob. Konj.
	26	3.9	Östl. El.
	30	0.0	Unt. Konj.
April	2	20.2	Westl. El.
	6	23.4	Ob. Konj.
	11	2.6	Östl. El.
	14	22.8	Unt. Konj.
	18	19.1	Westl. El.
	22	22.5	Ob. Konj.
	27	1.8	Östl. El.
	30	22.1	Unt. Konj.
Mai	4	18.5	Westl. El.
	8	22.1	Ob. Konj.
	13	1.5	Östl. El.
	16	21.8	Unt. Konj.
	20	18.4	Westl. El.
	24	22.1	Ob. Konj.
	29	1.5	Östl. El.
Juni	1	21.9	Unt. Konj.
	5	18.6	Westl. El.
	9	22.4	Ob. Konj.
		h	
Okt.	16	4.0	Ob. Konj.
	20	6.2	Östl. El.
	24	1.8	Unt. Konj.
	27	23.4	Westl. El.

TITAN

		h	
Nov.	1	3.9	Ob. Konj.
	5	5.9	Östl. El.
	9	1.3	Unt. Konj.
	12	22.9	Westl. El.
	17	3.3	Ob. Konj.
	21	5.2	Östl. El.
	25	0.5	Unt. Konj.
	28	22.0	Westl. El.
Dez.	3	2.2	Ob. Konj.
	7	4.0	Östl. El.
	10	23.2	Unt. Konj.
	14	20.6	Westl. El.
	19	0.7	Ob. Konj.
	23	2.4	Östl. El.
	26	21.5	Unt. Konj.
	30	18.8	Westl. El.
	34	22.7	Ob. Konj.

HYPERION

		h	
Jan.	2	8.7	Ob. Konj.
	7	20.1	Östl. El.
	12	1.6	Unt. Konj.
	17	0.0	Westl. El.
	23	10.6	Ob. Konj.
	28	22.2	Östl. El.
Febr.	2	3.7	Unt. Konj.
	7	1.9	Westl. El.
	13	12.6	Ob. Konj.
	19	0.7	Östl. El.
	23	6.4	Unt. Konj.
	28	4.5	Westl. El.
März	6	15.6	Ob. Konj.
	12	4.3	Östl. El.
	16	10.1	Unt. Konj.
	21	8.5	Westl. El.
	27	20.3	Ob. Konj.
April	2	9.1	Östl. El.
	6	15.1	Unt. Konj.
	11	14.2	Westl. El.
	18	2.8	Ob. Konj.
	23	15.6	Östl. El.
	27	21.6	Unt. Konj.

HYPERION

		h	
Mai	2	21.7	Westl. El.
	9	11.2	Ob. Konj.
	14	23.5	Östl. El.
	19	5.5	Unt. Konj.
	24	6.9	Westl. El.
	30	21.4	Ob. Konj.
Juni	5	8.7	Östl. El.
	9	14.7	Unt. Konj.
		h	
Okt.	16	10.6	Unt. Konj.
	21	23.4	Westl. El.
	28	14.4	Ob. Konj.
Nov.	2	15.2	Östl. El.
	6	21.4	Unt. Konj.
	12	11.0	Westl. El.
	19	1.2	Ob. Konj.
	24	1.0	Östl. El.
	28	7.2	Unt. Konj.
Dez.	3	21.0	Westl. El.
	10	10.6	Ob. Konj.
	15	9.6	Östl. El.
	19	15.9	Unt. Konj.
	25	5.7	Westl. El.
	31	18.4	Ob. Konj.
	36	17.1	Östl. El.

JAPETUS

		h	
Jan.	3	12.0	Östl. El.
	23	4.2	Unt. Konj.
Febr.	10	17.7	Westl. El.
März	2	1.3	Ob. Konj.
	22	16.7	Östl. El.
April	11	18.3	Unt. Konj.
	30	18.1	Westl. El.
Mai	20	14.5	Ob. Konj
Juni	10	20.6	Östl. El.
Okt.	9	22.4	Westl El.
	30	3.2	Ob. Konj
Nov.	20	4.7	Östl. El.
Dez.	9	23.1	Unt. Konj.
	28	16.8	Westl. El.

Konstellationen 1947

Weltzeit 1947		h	m	
Jan.	3	16		♀ im Perihel
	4	3		♅ i. kleinst. Abst. v. ☉
	5	9	46	♅ ☌ ☾
	6	17		♂ ☌ ☉
	7	12		☿ im Aphel
	8	12	18	♄ ☌ ☾
	13	1	18	♆ ☌ ☾
	13	6		♆ stationär in AR.
	16	13	25	♃ ☌ ☾
	18	3	4	♀ ☌ ☾
	18	12		☿ ☌ ♂; ☿ 0° 57′ s.
	21	23	4	♂ ☌ ☾
	22	6	2	☿ ☌ ☾
	22	16		☿ obere ☌ ☉
	26	9		♄ ☍ ☉
	28	2		♀ gr. westl. El. 46° 56′
		h	m	
Febr.	1	18	2	♅ ☌ ☾
	4	20	7	♄ ☌ ☾
	9	10	21	♆ ☌ ☾
	13	3	44	♃ ☌ ☾
	16	22	58	♀ ☌ ☾
	20	1	31	♂ ☌ ☾
	20	12		☿ im Perihel
	21	4		☿ gr. östl. El. 18° 7′
	22	8	58	☿ ☌ ☾
	25	0		♅ stationär in AR.
	27	4		☿ stationär in AR.
		h	m	
März	1	0	23	♅ ☌ ☾
	4	2	15	♄ ☌ ☾
	8	4		☿ untere ☌ ☉
	8	19	30	♆ ☌ ☾
	12	14	56	♃ ☌ ☾
	14	15		♃ stationär in AR.
	16	17		☿ ☌ ♂; ☿ 3° 40′ n.
	19	1	38	♀ ☌ ☾
	20	19	41	☿ ☌ ☾
	21	4	13	♂ ☌ ☾
	21	8		☿ stationär in AR.
	21	11	13	Frühlingsanfang
	27	15		♂ im Perihel
	28	6	29	♅ ☌ ☾
	31	7	16	♄ ☌ ☾
	31	16		♆ ☍ ☉

Weltzeit 1947		h	m	
April	3	18		♄ stationär in AR.
	5	3	10	♆ ☌ ☾
	5	12		☿ im Aphel
	5	12		☿ gr. westl. El. 27° 48′
	8	21	47	♃ ☌ ☾
	18	5	37	♀ ☌ ☾
	19	5	54	☿ ☌ ☾
	19	6	55	♂ ☌ ☾
	19	23		☿ ☌ ♂; ☿ 1° 49′ s.
	24	14	33	♅ ☌ ☾
	26	0		♀ im Aphel
	27	13	23	♄ ☌ ☾
		h	m	
Mai	2	8	51	♆ ☌ ☾
	6	0	9	♃ ☌ ☾
	14	15		♃ ☍ ☉
	15	23		☿ obere ☌ ☉
	17	12		♀ ☌ ♂; ♀ 1° 1′ s.
	18	8	46	♂ ☌ ☾
	18	9	30	♀ ☌ ☾
	19	11		☿ im Perihel
	20			☉ totale Finsternis
	21	0	17	☿ ☌ ☾
	22	1	26	♅ ☌ ☾
	24	22	38	♄ ☌ ☾
	28	16		☿ ☌ ♅; ☿ 1° 51′ n.
	29	13	33	♆ ☌ ☾
		h	m	
Juni	2	0	5	♃ ☌ ☾
	3			☾ partielle Finsternis
	13	19		♅ ☌ ☉
	16	8	26	♂ ☌ ☾
	17	9	40	♀ ☌ ☾
	17	11		☿ gr. östl. El. 24° 41′
	18	14	19	♅ ☌ ☾
	20	10		♆ stationär in AR.
	20	13	37	☿ ☌ ☾
	21	11	28	♄ ☌ ☾
	22	6	19	Sommersanfang
	25	19	11	♆ ☌ ☾
	29	1	11	♃ ☌ ☾
	30	17		☿ stationär in AR.

Weltzeit 1947		h	m	
Juli	2	11		☿ im Aphel
	2	20		♀ ☌ ⛢; ♀ 0° 34′ s.
	5	10		⛢ i. größt. Abst. v. ☉
	14	7		☿ untere ☌ ☉
	15	4	56	♂ ☌ ☾
	16	3	26	⛢ ☌ ☾
	16	9		♃ stationär in AR.
	17	5	40	♀ ☌ ☾
	17	18	18	☿ ☌ ☾
	19	2	50	♄ ☌ ☾
	22	9		☿ ☌ ♀; ☿ 4° 55′ s.
	23	3	10	♆ ☌ ☾
	25	9		☿ stationär in AR.
	26	6	41	♃ ☌ ☾
		h	m	
Aug.	3	20		☿ gr. westl. El. 19° 21′
	6	0		♄ ☌ ☉
	6	2		♂ ☌ ⛢; ♂ 0° 1′ n.
	12	14	52	⛢ ☌ ☾
	12	19		♀ ☌ ♄; ♀ 0° 20′ n.
	12	21	46	♂ ☌ ☾
	15	10	10	☿ ☌ ☾
	15	11		☿ im Perihel
	15	18	56	♄ ☌ ☾
	16	0	31	♀ ☌ ☾
	16	8		♀ im Perihel
	18	13		☿ ☌ ♄; ☿ 0° 35′ n.
	19	13	38	♆ ☌ ☾
	22	17	47	♃ ☌ ☾
	26	20		☿ ☌ ♀; ☿ 0° 28′ n.
	28	10		☿ obere ☌ ☉
		h	m	
Sept.	1	13		♀ obere ☌ ☉
	8	23	25	⛢ ☌ ☾
	10	10	58	♂ ☌ ☾
	12	9	46	♄ ☌ ☾
	14	22	33	♀ ☌ ☾
	15	18	31	☿ ☌ ☾
	16	1	23	♆ ☌ ☾
	18	9		☿ ☌ ♆; ☿ 1° 38′ s.
	19	9	44	♃ ☌ ☾
	23	21	29	Herbstanfang
	27	21		♀ ☌ ♆; ♀ 0° 18′ s.
	28	10		☿ im Aphel

Weltzeit 1947		h	m	
Okt.	2	16		⛢ stationär in AR.
	5	7		♆ ☌ ☉
	6	5	20	⛢ ☌ ☾
	8	20	36	♂ ☌ ☾
	9	21	48	♄ ☌ ☾
	13	12	39	♆ ☌ ☾
	13	23		☿ gr. östl. El. 25° 2′
	15	2	19	♀ ☌ ☾
	16	3	53	☿ ☌ ☾
	17	4	41	♃ ☌ ☾
	25	22		☿ stationär in AR.
	29	10		☿ ☌ ♀; ☿ 2° 42′ s.
		h	m	
Nov.	2	10	33	⛢ ☌ ☾
	5	22		☿ untere ☌ ☉
	6	2	37	♂ ☌ ☾
	6	6	40	♄ ☌ ☾
	9	14		♀ ☌ ♃; ♀ 0° 56′ s.
	9	21	58	♆ ☌ ☾
	11	10		☿ im Perihel
	11	18		♂ ☌ ♄; ♂ 0° 55′ n.
	11	19	46	☿ ☌ ☾
	12			☉ ringf. Finsternis
	14	0	39	♃ ☌ ☾
	14	10	25	♀ ☌ ☾
	14	18		☿ stationär in AR.
	22	10		☿ gr. westl. El. 19° 44′
	29	17	16	⛢ ☌ ☾
		h	m	
Dez.	1	13		♃ ☌ ☉
	3	13	36	♄ ☌ ☾
	4	4	9	♂ ☌ ☾
	5	3		♄ stationär in AR.
	6	17		♀ im Aphel
	7	5	8	♆ ☌ ☾
	11	10	48	☿ ☌ ☾
	11	20	2	♃ ☌ ☾
	14	19	34	♀ ☌ ☾
	15	2		☿ ☌ ♃; ☿ 0° 34′ s.
	16	22		⛢ ☍ ☉
	22	16	43	Wintersanfang
	25	9		☿ im Aphel
	27	2	7	⛢ ☌ ☾
	30	20	38	♄ ☌ ☾

Sonnenaufgang 1947

Mittlere Ortszeit | Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Jan. 0	5 42	5 59	6 16	6 35	6 55	7 22	7 38	7 59	8 25	9 3
1	5 43	6 0	6 17	6 35	6 56	7 22	7 38	7 59	8 25	9 3
2	5 43	6 0	6 17	6 35	6 56	7 22	7 38	7 59	8 25	9 3
3	5 44	6 1	6 18	6 36	6 56	7 22	7 38	7 59	8 25	9 2
4	5 44	6 1	6 18	6 36	6 56	7 22	7 38	7 59	8 25	9 1
5	5 45	6 1	6 18	6 36	6 56	7 22	7 38	7 58	8 24	9 1
6	5 45	6 2	6 19	6 37	6 56	7 22	7 38	7 58	8 24	9 0
7	5 46	6 2	6 19	6 37	6 57	7 22	7 38	7 58	8 23	8 59
8	5 46	6 2	6 19	6 37	6 57	7 22	7 38	7 58	8 23	8 58
9	5 47	6 3	6 20	6 37	6 57	7 22	7 37	7 57	8 22	8 57
10	5 48	6 4	6 20	6 37	6 57	7 22	7 37	7 57	8 21	8 56
11	5 48	6 4	6 20	6 37	6 57	7 22	7 37	7 56	8 21	8 55
12	5 49	6 5	6 21	6 38	6 57	7 22	7 37	7 56	8 20	8 53
13	5 49	6 5	6 21	6 38	6 57	7 21	7 36	7 55	8 19	8 52
14	5 50	6 5	6 21	6 38	6 57	7 21	7 36	7 54	8 18	8 51
15	5 50	6 5	6 21	6 38	6 57	7 21	7 36	7 54	8 17	8 49
16	5 51	6 6	6 22	6 39	6 57	7 20	7 35	7 53	8 16	8 48
17	5 51	6 6	6 22	6 39	6 57	7 20	7 34	7 52	8 15	8 46
18	5 52	6 7	6 22	6 38	6 56	7 19	7 33	7 51	8 14	8 45
19	5 52	6 7	6 22	6 38	6 56	7 19	7 32	7 50	8 12	8 43
20	5 53	6 7	6 22	6 38	6 56	7 18	7 31	7 49	8 11	8 41
21	5 53	6 7	6 22	6 38	6 56	7 18	7 31	7 48	8 10	8 39
22	5 53	6 8	6 23	6 38	6 55	7 17	7 30	7 47	8 8	8 37
23	5 54	6 8	6 23	6 38	6 55	7 17	7 29	7 46	8 7	8 35
24	5 54	6 8	6 23	6 38	6 55	7 16	7 28	7 45	8 6	8 33
25	5 55	6 9	6 23	6 38	6 55	7 15	7 28	7 44	8 4	8 31
26	5 55	6 9	6 23	6 38	6 54	7 15	7 27	7 43	8 3	8 29
27	5 56	6 9	6 23	6 38	6 54	7 14	7 26	7 42	8 1	8 27
28	5 56	6 9	6 23	6 37	6 53	7 13	7 25	7 40	7 59	8 25
29	5 56	6 9	6 23	6 37	6 53	7 12	7 24	7 39	7 58	8 23
30	5 57	6 10	6 23	6 37	6 52	7 11	7 23	7 38	7 56	8 21
31	5 57	6 10	6 23	6 37	6 52	7 11	7 23	7 37	7 54	8 18
Febr. 1	5 58	6 10	6 23	6 36	6 51	7 10	7 22	7 35	7 53	8 16
2	5 58	6 10	6 23	6 36	6 50	7 9	7 20	7 34	7 51	8 14
3	5 58	6 10	6 23	6 36	6 50	7 8	7 18	7 32	7 49	8 11
4	5 59	6 10	6 22	6 35	6 49	7 7	7 17	7 31	7 47	8 9
5	5 59	6 10	6 22	6 34	6 48	7 6	7 16	7 29	7 45	8 7
6	5 59	6 10	6 22	6 34	6 48	7 5	7 15	7 28	7 43	8 4
7	6 0	6 11	6 22	6 34	6 47	7 4	7 14	7 26	7 41	8 2
8	6 0	6 11	6 22	6 33	6 46	7 3	7 13	7 25	7 39	7 59
9	6 0	6 11	6 22	6 33	6 46	7 2	7 11	7 23	7 37	7 57
10	6 1	6 11	6 21	6 32	6 45	7 0	7 9	7 21	7 35	7 54

Sonnenuntergang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Jan. 0	18 24	18 7	17 49	17 31	17 10	16 44	16 28	16 7	15 41	15 3
1	18 24	18 7	17 50	17 32	17 11	16 45	16 28	16 8	15 42	15 4
2	18 25	18 8	17 51	17 33	17 12	16 46	16 29	16 9	15 43	15 6
3	18 25	18 8	17 51	17 34	17 13	16 46	16 30	16 10	15 44	15 7
4	18 25	18 9	17 52	17 35	17 13	16 47	16 31	16 11	15 45	15 9
5	18 26	18 9	17 52	17 35	17 14	16 48	16 32	16 12	15 47	15 10
6	18 26	18 10	17 53	17 36	17 15	16 49	16 33	16 14	15 48	15 12
7	18 26	18 10	17 53	17 36	17 16	16 50	16 35	16 15	15 49	15 14
8	18 27	18 11	17 54	17 37	17 16	16 51	16 36	16 16	15 51	15 15
9	18 27	18 11	17 54	17 38	17 17	16 52	16 37	16 17	15 52	15 17
10	18 27	18 11	17 55	17 38	17 18	16 53	16 38	16 19	15 54	15 19
11	18 28	18 12	17 55	17 39	17 19	16 54	16 39	16 20	15 56	15 21
12	18 28	18 12	17 56	17 40	17 20	16 55	16 40	16 21	15 57	15 23
13	18 28	18 12	17 56	17 40	17 20	16 56	16 41	16 23	15 59	15 26
14	18 28	18 13	17 57	17 41	17 21	16 57	16 42	16 24	16 1	15 28
15	18 29	18 13	17 57	17 42	17 22	16 58	16 44	16 26	16 2	15 30
16	18 29	18 14	17 58	17 43	17 23	16 59	16 45	16 27	16 4	15 32
17	18 29	18 14	17 58	17 43	17 24	17 1	16 47	16 28	16 6	15 34
18	18 29	18 14	17 59	17 44	17 25	17 2	16 48	16 30	16 8	15 37
19	18 29	18 14	17 59	17 44	17 25	17 3	16 49	16 31	16 9	15 39
20	18 29	18 15	18 0	17 45	17 26	17 4	16 50	16 33	16 11	15 42
21	18 29	18 15	18 0	17 45	17 27	17 5	16 52	16 35	16 13	15 44
22	18 30	18 16	18 1	17 46	17 28	17 6	16 53	16 36	16 15	15 46
23	18 30	18 16	18 1	17 46	17 29	17 7	16 54	16 38	16 17	15 49
24	18 30	18 16	18 2	17 47	17 30	17 8	16 55	16 39	16 19	15 51
25	18 30	18 16	18 2	17 47	17 30	17 10	16 57	16 41	16 21	15 54
26	18 30	18 16	18 2	17 48	17 31	17 11	16 59	16 43	16 23	15 57
27	18 30	18 17	18 3	17 49	17 32	17 12	17 0	16 44	16 25	15 59
28	18 30	18 17	18 3	17 49	17 33	17 13	17 1	16 46	16 27	16 2
29	18 30	18 17	18 4	17 50	17 34	17 14	17 3	16 48	16 29	16 4
30	18 30	18 17	18 4	17 50	17 35	17 16	17 4	16 49	16 31	16 7
31	18 30	18 17	18 4	17 51	17 36	17 17	17 5	16 51	16 33	16 9
Febr. 1	18 30	18 17	18 5	17 52	17 37	17 18	17 7	16 53	16 35	16 12
2	18 30	18 17	18 5	17 52	17 37	17 19	17 8	16 55	16 37	16 15
3	18 29	18 17	18 5	17 53	17 38	17 21	17 9	16 56	16 40	16 17
4	18 29	18 17	18 6	17 54	17 39	17 22	17 11	16 58	16 42	16 20
5	18 29	18 17	18 6	17 54	17 40	17 23	17 12	17 0	16 44	16 23
6	18 29	18 17	18 6	17 55	17 41	17 24	17 14	17 1	16 46	16 25
7	18 29	18 18	18 7	17 56	17 42	17 25	17 15	17 3	16 48	16 28
8	18 29	18 18	18 7	17 56	17 43	17 27	17 17	17 5	16 50	16 30
9	18 28	18 18	18 7	17 57	17 44	17 28	17 19	17 7	16 52	16 33
10	18 28	18 18	18 8	17 57	17 44	17 29	17 20	17 8	16 54	16 36

Sonnenaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Febr. 10	6 1	6 11	6 21	6 32	6 45	7 0	7 9	7 21	7 35	7 54
11	6 1	6 11	6 21	6 32	6 44	6 59	7 8	7 19	7 33	7 51
12	6 1	6 11	6 21	6 31	6 43	6 58	7 7	7 18	7 31	7 49
13	6 1	6 11	6 21	6 31	6 43	6 57	7 6	7 16	7 29	7 46
14	6 1	6 11	6 20	6 30	6 42	6 56	7 4	7 14	7 27	7 43
15	6 2	6 11	6 20	6 30	6 41	6 54	7 2	7 12	7 25	7 41
16	6 2	6 11	6 20	6 29	6 40	6 53	7 1	7 11	7 22	7 38
17	6 2	6 11	6 20	6 29	6 39	6 52	7 0	7 9	7 20	7 35
18	6 2	6 10	6 19	6 28	6 38	6 50	6 58	7 7	7 18	7 32
19	6 2	6 10	6 19	6 27	6 37	6 49	6 56	7 5	7 16	7 30
20	6 2	6 10	6 19	6 27	6 36	6 48	6 55	7 3	7 14	7 27
21	6 2	6 10	6 18	6 26	6 35	6 46	6 53	7 1	7 11	7 24
22	6 3	6 10	6 18	6 25	6 34	6 45	6 51	6 59	7 9	7 21
23	6 3	6 10	6 17	6 24	6 33	6 44	6 49	6 57	7 7	7 19
24	6 3	6 10	6 17	6 24	6 32	6 42	6 47	6 55	7 4	7 16
25	6 3	6 10	6 17	6 23	6 31	6 41	6 46	6 53	7 2	7 13
26	6 3	6 9	6 16	6 22	6 30	6 39	6 45	6 52	7 0	7 10
27	6 3	6 9	6 16	6 22	6 29	6 38	6 44	6 50	6 57	7 7
28	6 3	6 9	6 15	6 21	6 28	6 36	6 42	6 48	6 55	7 4
März 1	6 3	6 9	6 15	6 20	6 27	6 35	6 40	6 45	6 52	7 1
2	6 4	6 9	6 14	6 19	6 26	6 34	6 38	6 43	6 50	6 58
3	6 4	6 9	6 14	6 19	6 25	6 32	6 36	6 41	6 47	6 55
4	6 4	6 8	6 13	6 18	6 24	6 30	6 34	6 39	6 45	6 53
5	6 4	6 8	6 13	6 17	6 23	6 29	6 33	6 37	6 43	6 50
6	6 4	6 8	6 12	6 16	6 22	6 27	6 31	6 35	6 40	6 47
7	6 4	6 8	6 12	6 16	6 21	6 26	6 29	6 33	6 38	6 44
8	6 4	6 7	6 11	6 15	6 19	6 24	6 27	6 31	6 35	6 41
9	6 4	6 7	6 11	6 14	6 18	6 23	6 26	6 29	6 33	6 38
10	6 4	6 7	6 10	6 13	6 17	6 21	6 24	6 27	6 30	6 35
11	6 4	6 7	6 10	6 12	6 16	6 20	6 22	6 24	6 28	6 32
12	6 4	6 6	6 9	6 11	6 15	6 18	6 20	6 22	6 25	6 29
13	6 4	6 6	6 9	6 11	6 14	6 16	6 18	6 20	6 23	6 26
14	6 4	6 6	6 8	6 10	6 12	6 15	6 16	6 18	6 20	6 23
15	6 4	6 6	6 8	6 9	6 11	6 13	6 14	6 16	6 18	6 20
16	6 4	6 5	6 7	6 8	6 10	6 12	6 13	6 14	6 15	6 17
17	6 4	6 5	6 6	6 7	6 9	6 10	6 11	6 12	6 13	6 14
18	6 4	6 5	6 6	6 7	6 8	6 8	6 8	6 9	6 10	6 11
19	6 4	6 4	6 5	6 5	6 6	6 7	6 7	6 7	6 7	6 8
20	6 4	6 4	6 5	6 5	6 5	6 5	6 5	6 5	6 5	6 5
21	6 4	6 4	6 4	6 4	6 4	6 4	6 3	6 3	6 2	6 2
22	6 4	6 4	6 4	6 4	6 3	6 2	6 2	6 1	6 0	5 59
23	6 4	6 4	6 3	6 3	6 2	6 0	6 0	5 59	5 57	5 56

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Febr. 10	18 28	18 18	18 8	17 57	17 44	17 29	17 20	17 8	16 54	16 36
11	18 28	18 18	18 8	17 57	17 45	17 30	17 21	17 10	16 56	16 38
12	18 28	18 18	18 8	17 58	17 46	17 31	17 23	17 12	16 58	16 41
13	18 27	18 18	18 8	17 58	17 47	17 32	17 24	17 14	17 1	16 44
14	18 27	18 18	18 8	17 59	17 48	17 34	17 25	17 15	17 3	16 46
15	18 27	18 18	18 9	17 59	17 48	17 35	17 27	17 17	17 5	16 49
16	18 27	18 18	18 9	18 0	17 49	17 36	17 28	17 19	17 7	16 51
17	18 26	18 17	18 9	18 0	17 50	17 37	17 29	17 20	17 9	16 54
18	18 26	18 17	18 9	18 1	17 51	17 38	17 31	17 22	17 11	16 57
19	18 26	18 17	18 9	18 1	17 51	17 40	17 33	17 24	17 13	16 59
20	18 25	18 17	18 10	18 1	17 52	17 41	17 34	17 26	17 15	17 2
21	18 25	18 17	18 10	18 2	17 53	17 42	17 35	17 27	17 17	17 5
22	18 25	18 17	18 10	18 2	17 53	17 43	17 37	17 29	17 19	17 7
23	18 24	18 17	18 10	18 3	17 54	17 44	17 38	17 31	17 22	17 10
24	18 24	18 17	18 10	18 3	17 55	17 45	17 39	17 32	17 24	17 12
25	18 23	18 17	18 10	18 3	17 55	17 46	17 40	17 34	17 26	17 15
26	18 23	18 17	18 10	18 4	17 56	17 48	17 42	17 36	17 28	17 17
27	18 23	18 17	18 10	18 4	17 57	17 49	17 43	17 37	17 30	17 20
28	18 22	18 16	18 10	18 4	17 58	17 50	17 45	17 39	17 32	17 23
März 1	18 22	18 16	18 10	18 4	17 58	17 51	17 46	17 41	17 34	17 25
2	18 21	18 16	18 11	18 5	17 59	17 52	17 47	17 42	17 36	17 28
3	18 20	18 16	18 11	18 6	18 0	17 53	17 49	17 44	17 38	17 30
4	18 20	18 16	18 11	18 6	18 0	17 54	17 50	17 46	17 40	17 33
5	18 19	18 15	18 11	18 6	18 1	17 55	17 51	17 47	17 42	17 35
6	18 19	18 15	18 11	18 7	18 2	17 56	17 53	17 49	17 44	17 38
7	18 19	18 15	18 11	18 7	18 2	17 57	17 54	17 51	17 46	17 40
8	18 18	18 15	18 11	18 7	18 3	17 59	17 56	17 52	17 48	17 43
9	18 18	18 15	18 11	18 8	18 4	18 0	17 57	17 54	17 50	17 45
10	18 17	18 14	18 11	18 8	18 4	18 1	17 59	17 56	17 52	17 48
11	18 17	18 14	18 11	18 8	18 5	18 2	18 0	17 57	17 54	17 50
12	18 16	18 14	18 11	18 9	18 6	18 3	18 1	17 59	17 56	17 53
13	18 15	18 13	18 11	18 9	18 6	18 4	18 2	18 0	17 58	17 55
14	18 15	18 13	18 11	18 9	18 7	18 5	18 4	18 2	18 0	17 58
15	18 14	18 13	18 11	18 10	18 8	18 6	18 5	18 4	18 2	18 0
16	18 14	18 13	18 11	18 10	18 8	18 7	18 6	18 5	18 4	18 3
17	18 13	18 12	18 11	18 10	18 9	18 8	18 8	18 7	18 6	18 5
18	18 13	18 12	18 11	18 11	18 10	18 9	18 9	18 8	18 8	18 7
19	18 12	18 12	18 11	18 11	18 10	18 10	18 10	18 10	18 10	18 10
20	18 12	18 12	18 11	18 11	18 11	18 11	18 11	18 12	18 12	18 12
21	18 11	18 11	18 11	18 11	18 11	18 12	18 12	18 13	18 14	18 15
22	18 10	18 10	18 11	18 11	18 12	18 13	18 14	18 15	18 16	18 17
23	18 10	18 10	18 11	18 12	18 13	18 14	18 15	18 16	18 18	18 20

Sonnenaufgang 1947

Mittlere Ortszeit | Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
März 23	6 4	6 4	6 3	6 3	6 2	6 0	6 0	5 59	5 57	5 56
24	6 4	6 3	6 2	6 1	6 0	5 59	5 58	5 56	5 55	5 53
25	6 4	6 3	6 2	6 1	5 59	5 57	5 56	5 54	5 52	5 49
26	6 4	6 3	6 1	6 0	5 58	5 55	5 54	5 52	5 50	5 46
27	6 4	6 3	6 1	5 59	5 57	5 54	5 53	5 50	5 47	5 43
28	6 4	6 2	6 0	5 58	5 56	5 52	5 51	5 48	5 44	5 40
29	6 4	6 2	5 59	5 57	5 54	5 51	5 49	5 46	5 42	5 37
30	6 4	6 2	5 59	5 56	5 53	5 49	5 47	5 43	5 39	5 34
31	6 4	6 1	5 58	5 55	5 52	5 47	5 45	5 41	5 37	5 31
April 1	6 4	6 1	5 58	5 55	5 51	5 46	5 43	5 39	5 34	5 28
2	6 4	6 1	5 57	5 54	5 50	5 44	5 41	5 37	5 32	5 25
3	6 4	6 1	5 57	5 53	5 48	5 42	5 39	5 35	5 29	5 22
4	6 4	6 0	5 56	5 52	5 47	5 41	5 37	5 32	5 27	5 19
5	6 4	6 0	5 56	5 52	5 46	5 39	5 35	5 30	5 24	5 16
6	6 4	6 0	5 55	5 51	5 45	5 38	5 33	5 28	5 22	5 13
7	6 4	5 59	5 54	5 50	5 44	5 36	5 32	5 26	5 19	5 10
8	6 4	5 59	5 54	5 49	5 42	5 35	5 30	5 24	5 17	5 7
9	6 4	5 59	5 53	5 48	5 41	5 33	5 28	5 22	5 14	5 4
10	6 4	5 59	5 53	5 47	5 40	5 31	5 26	5 20	5 12	5 1
11	6 4	5 58	5 52	5 46	5 39	5 30	5 25	5 18	5 9	4 58
12	6 4	5 58	5 52	5 46	5 38	5 28	5 23	5 15	5 7	4 55
13	6 4	5 58	5 51	5 45	5 37	5 27	5 21	5 13	5 4	4 52
14	6 4	5 58	5 51	5 44	5 36	5 25	5 19	5 11	5 2	4 49
15	6 4	5 57	5 50	5 43	5 34	5 24	5 18	5 9	4 59	4 46
16	6 4	5 57	5 50	5 42	5 33	5 22	5 16	5 7	4 57	4 43
17	6 4	5 57	5 49	5 41	5 32	5 21	5 14	5 5	4 54	4 40
18	6 4	5 57	5 49	5 41	5 31	5 19	5 12	5 3	4 52	4 37
19	6 4	5 56	5 48	5 40	5 30	5 18	5 10	5 1	4 50	4 35
20	6 4	5 56	5 48	5 39	5 29	5 16	5 9	4 59	4 47	4 32
21	6 4	5 56	5 47	5 38	5 28	5 15	5 7	4 57	4 45	4 29
22	6 4	5 56	5 47	5 38	5 27	5 13	5 5	4 55	4 42	4 26
23	6 4	5 55	5 46	5 37	5 26	5 12	5 4	4 53	4 40	4 23
24	6 4	5 55	5 46	5 36	5 25	5 11	5 2	4 51	4 38	4 20
25	6 4	5 55	5 45	5 35	5 24	5 9	5 0	4 49	4 35	4 17
26	6 4	5 55	5 45	5 34	5 23	5 8	4 59	4 47	4 33	4 14
27	6 4	5 55	5 45	5 34	5 22	5 7	4 57	4 45	4 31	4 12
28	6 4	5 54	5 44	5 33	5 21	5 5	4 56	4 44	4 29	4 9
29	6 4	5 54	5 44	5 33	5 20	5 4	4 54	4 42	4 26	4 6
30	6 4	5 54	5 43	5 32	5 19	5 3	4 53	4 40	4 24	4 3
Mai 1	6 4	5 54	5 43	5 31	5 18	5 1	4 51	4 38	4 22	4 1
2	6 4	5 54	5 43	5 31	5 17	5 0	4 49	4 36	4 20	3 58
3	6 5	5 54	5 42	5 30	5 17	4 59	4 48	4 35	4 18	3 55

Sonnenuntergang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
März 23	18 10	18 10	18 11	18 12	18 13	18 14	18 15	18 16	18 18	18 20
24	18 9	18 10	18 11	18 12	18 13	18 15	18 16	18 18	18 20	18 22
25	18 9	18 10	18 11	18 12	18 14	18 16	18 17	18 19	18 22	18 24
26	18 8	18 9	18 11	18 13	18 15	18 17	18 19	18 21	18 24	18 27
27	18 7	18 9	18 11	18 13	18 15	18 18	18 20	18 23	18 26	18 29
28	18 7	18 9	18 11	18 13	18 16	18 19	18 21	18 24	18 27	18 32
29	18 6	18 8	18 11	18 13	18 16	18 20	18 23	18 26	18 29	18 34
30	18 6	18 8	18 11	18 13	18 17	18 21	18 24	18 27	18 31	18 37
31	18 5	18 8	18 11	18 14	18 18	18 22	18 25	18 29	18 33	18 39
April 1	18 4	18 7	18 11	18 14	18 18	18 23	18 26	18 30	18 35	18 42
2	18 4	18 7	18 11	18 15	18 19	18 24	18 28	18 32	18 37	18 44
3	18 3	18 7	18 11	18 15	18 19	18 25	18 29	18 34	18 39	18 46
4	18 3	18 6	18 10	18 15	18 20	18 26	18 30	18 35	18 41	18 49
5	18 2	18 6	18 10	18 15	18 20	18 27	18 31	18 37	18 43	18 51
6	18 2	18 6	18 10	18 15	18 21	18 28	18 32	18 38	18 45	18 54
7	18 1	18 5	18 10	18 16	18 22	18 29	18 34	18 40	18 47	18 56
8	18 1	18 5	18 10	18 16	18 22	18 30	18 35	18 41	18 49	18 59
9	18 0	18 5	18 10	18 16	18 23	18 31	18 36	18 43	18 51	19 1
10	17 59	18 4	18 10	18 16	18 23	18 32	18 37	18 44	18 53	19 4
11	17 59	18 4	18 10	18 17	18 24	18 33	18 38	18 46	18 55	19 6
12	17 58	18 4	18 10	18 17	18 25	18 34	18 40	18 48	18 57	19 8
13	17 58	18 4	18 10	18 17	18 25	18 35	18 41	18 49	18 59	19 11
14	17 57	18 3	18 10	18 18	18 26	18 36	18 43	18 51	19 1	19 13
15	17 57	18 3	18 10	18 18	18 26	18 37	18 44	18 52	19 3	19 16
16	17 56	18 3	18 10	18 18	18 27	18 38	18 45	18 54	19 4	19 18
17	17 56	18 3	18 11	18 19	18 28	18 39	18 46	18 55	19 6	19 21
18	17 55	18 3	18 11	18 19	18 28	18 41	18 48	18 57	19 8	19 23
19	17 55	18 3	18 11	18 19	18 29	18 42	18 50	18 59	19 10	19 26
20	17 54	18 2	18 11	18 20	18 30	18 43	18 51	19 0	19 12	19 28
21	17 54	18 2	18 11	18 20	18 30	18 44	18 52	19 2	19 14	19 31
22	17 54	18 2	18 11	18 20	18 31	18 45	18 53	19 3	19 16	19 33
23	17 53	18 2	18 11	18 20	18 31	18 46	18 54	19 5	19 18	19 36
24	17 53	18 2	18 11	18 21	18 32	18 47	18 55	19 6	19 20	19 38
25	17 52	18 1	18 11	18 21	18 33	18 48	18 57	19 8	19 22	19 41
26	17 52	18 1	18 11	18 21	18 33	18 49	18 59	19 10	19 24	19 43
27	17 51	18 1	18 11	18 22	18 34	18 50	19 0	19 11	19 26	19 46
28	17 51	18 1	18 11	18 22	18 35	18 51	19 1	19 13	19 28	19 48
29	17 51	18 1	18 11	18 22	18 35	18 52	19 2	19 14	19 30	19 51
30	17 50	18 1	18 11	18 23	18 36	18 53	19 3	19 16	19 32	19 53
Mai 1	17 50	18 1	18 11	18 23	18 36	18 54	19 4	19 17	19 34	19 56
2	17 50	18 1	18 12	18 24	18 37	18 55	19 6	19 19	19 36	19 58
3	17 49	18 1	18 12	18 24	18 38	18 56	19 7	19 20	19 37	20 1

Sonnenaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Mai 3	6 5	5 54	5 42	5 30	5 17	4 59	4 48	4 35	4 18	3 55
4	6 5	5 54	5 42	5 30	5 16	4 58	4 47	4 33	4 16	3 52
5	6 5	5 54	5 42	5 29	5 15	4 56	4 45	4 31	4 14	3 50
6	6 5	5 53	5 41	5 28	5 14	4 55	4 44	4 29	4 11	3 47
7	6 5	5 53	5 41	5 28	5 13	4 54	4 43	4 28	4 9	3 45
8	6 5	5 53	5 41	5 27	5 12	4 53	4 41	4 26	4 7	3 42
9	6 5	5 53	5 41	5 27	5 12	4 52	4 40	4 25	4 5	3 39
10	6 6	5 53	5 40	5 26	5 11	4 51	4 38	4 23	4 3	3 37
11	6 6	5 53	5 40	5 26	5 10	4 50	4 37	4 21	4 1	3 34
12	6 6	5 53	5 40	5 25	5 9	4 49	4 36	4 20	4 0	3 32
13	6 6	5 53	5 40	5 25	5 9	4 48	4 35	4 18	3 58	3 29
14	6 6	5 53	5 39	5 24	5 8	4 47	4 34	4 17	3 56	3 27
15	6 6	5 53	5 39	5 24	5 7	4 46	4 32	4 15	3 54	3 24
16	6 7	5 53	5 39	5 24	5 7	4 45	4 31	4 14	3 52	3 22
17	6 7	5 53	5 39	5 23	5 6	4 44	4 30	4 13	3 51	3 20
18	6 7	5 53	5 39	5 23	5 5	4 43	4 29	4 11	3 49	3 17
19	6 7	5 53	5 38	5 22	5 5	4 42	4 28	4 10	3 47	3 15
20	6 7	5 53	5 38	5 22	5 4	4 41	4 27	4 9	3 46	3 13
21	6 8	5 53	5 38	5 22	5 4	4 40	4 26	4 8	3 44	3 11
22	6 8	5 53	5 38	5 21	5 3	4 40	4 25	4 6	3 42	3 9
23	6 8	5 53	5 38	5 21	5 3	4 39	4 24	4 5	3 41	3 7
24	6 8	5 53	5 38	5 21	5 2	4 38	4 23	4 4	3 39	3 5
25	6 9	5 54	5 38	5 21	5 2	4 38	4 22	4 3	3 38	3 3
26	6 9	5 54	5 38	5 20	5 1	4 37	4 22	4 2	3 37	3 1
27	6 9	5 54	5 38	5 20	5 1	4 36	4 21	4 1	3 35	2 59
28	6 9	5 54	5 38	5 20	5 1	4 36	4 21	4 0	3 34	2 57
29	6 10	5 54	5 38	5 20	5 0	4 35	4 20	3 59	3 33	2 55
30	6 10	5 54	5 38	5 20	5 0	4 35	4 19	3 58	3 32	2 54
31	6 10	5 54	5 38	5 20	5 0	4 34	4 18	3 57	3 31	2 52
Juni 1	6 10	5 54	5 38	5 20	4 59	4 34	4 18	3 57	3 29	2 51
2	6 11	5 55	5 38	5 20	4 59	4 33	4 17	3 56	3 28	2 49
3	6 11	5 55	5 38	5 20	4 59	4 33	4 17	3 55	3 27	2 48
4	6 11	5 55	5 38	5 20	4 59	4 32	4 16	3 54	3 27	2 46
5	6 11	5 55	5 38	5 20	4 59	4 32	4 16	3 54	3 26	2 45
6	6 12	5 55	5 38	5 20	4 59	4 32	4 15	3 53	3 25	2 44
7	6 12	5 55	5 38	5 19	4 58	4 32	4 15	3 53	3 24	2 43
8	6 12	5 55	5 38	5 19	4 58	4 31	4 14	3 52	3 23	2 42
9	6 12	5 55	5 38	5 19	4 58	4 31	4 14	3 52	3 23	2 41
10	6 13	5 56	5 38	5 19	4 58	4 31	4 13	3 51	3 22	2 40
11	6 13	5 56	5 39	5 20	4 58	4 31	4 13	3 51	3 22	2 39
12	6 13	5 56	5 39	5 20	4 58	4 31	4 13	3 51	3 21	2 38
13	6 13	5 56	5 39	5 20	4 58	4 31	4 13	3 51	3 21	2 37

Mittlere Ortszeit — Meridian von Greenwich

Tag		Geographische Breite									
		−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947		h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Mai	3	17 49	18 1	18 12	18 24	18 38	18 56	19 7	19 20	19 37	20 1
	4	17 49	18 1	18 12	18 24	18 39	18 57	19 8	19 22	19 39	20 3
	5	17 49	18 1	18 12	18 24	18 39	18 58	19 9	19 23	19 41	20 5
	6	17 48	18 0	18 12	18 25	18 40	18 59	19 10	19 25	19 43	20 8
	7	17 48	18 0	18 12	18 25	18 41	19 0	19 11	19 26	19 45	20 10
	8	17 48	18 0	18 12	18 25	18 41	19 1	19 13	19 28	19 47	20 13
	9	17 47	18 0	18 13	18 26	18 42	19 2	19 14	19 29	19 49	20 15
	10	17 47	18 0	18 13	18 26	18 43	19 3	19 15	19 31	19 51	20 18
	11	17 47	18 0	18 13	18 26	18 43	19 4	19 16	19 32	19 52	20 20
	12	17 47	18 0	18 13	18 27	18 44	19 5	19 18	19 34	19 54	20 22
	13	17 46	18 0	18 13	18 27	18 45	19 6	19 19	19 35	19 56	20 25
	14	17 46	18 0	18 13	18 27	18 45	19 6	19 20	19 37	19 58	20 27
	15	17 46	18 0	18 14	18 28	18 46	19 7	19 21	19 38	20 0	20 30
	16	17 46	18 0	18 14	18 28	18 47	19 8	19 22	19 38	20 1	20 32
	17	17 46	18 0	18 14	18 28	18 47	19 9	19 24	19 41	20 3	20 34
	18	17 46	18 0	18 14	18 29	18 48	19 10	19 25	19 42	20 5	20 37
	19	17 45	18 0	18 15	18 30	18 48	19 11	19 26	19 44	20 7	20 39
	20	17 45	18 0	18 15	18 30	18 49	19 12	19 27	19 45	20 8	20 41
	21	17 45	18 0	18 15	18 30	18 50	19 13	19 28	19 46	20 10	20 44
	22	17 45	18 0	18 15	18 30	18 50	19 14	19 29	19 48	20 12	20 46
	23	17 45	18 0	18 15	18 30	18 51	19 15	19 30	19 49	20 13	20 48
	24	17 45	18 0	18 16	18 31	18 51	19 16	19 31	19 50	20 15	20 50
	25	17 45	18 0	18 16	18 31	18 52	19 16	19 31	19 51	20 17	20 52
	26	17 45	18 0	18 16	18 32	18 53	19 17	19 32	19 53	20 18	20 54
	27	17 45	18 0	18 16	18 32	18 53	19 18	19 34	19 54	20 20	20 56
	28	17 45	18 1	18 17	18 33	18 54	19 19	19 35	19 55	20 21	20 58
	29	17 45	18 1	18 17	18 33	18 54	19 20	19 36	19 56	20 23	21 0
	30	17 45	18 1	18 17	18 34	18 55	19 20	19 37	19 57	20 24	21 2
	31	17 45	18 1	18 17	18 34	18 55	19 21	19 38	19 58	20 25	21 4
Juni	1	17 45	18 1	18 18	18 35	18 56	19 22	19 38	19 59	20 27	21 6
	2	17 45	18 1	18 18	18 35	18 57	19 23	19 39	20 0	20 28	21 8
	3	17 45	18 1	18 18	18 35	18 57	19 23	19 39	20 1	20 29	21 9
	4	17 45	18 1	18 18	18 36	18 58	19 24	19 40	20 2	20 30	21 11
	5	17 45	18 2	18 19	18 36	18 58	19 25	19 41	20 3	20 31	21 13
	6	17 45	18 2	18 19	18 37	18 59	19 25	19 42	20 4	20 32	21 14
	7	17 45	18 2	18 19	18 37	18 59	19 26	19 43	20 5	20 34	21 15
	8	17 45	18 2	18 19	18 37	18 59	19 27	19 44	20 6	20 35	21 17
	9	17 46	18 3	18 20	18 38	19 0	19 27	19 45	20 7	20 36	21 18
	10	17 46	18 3	18 20	18 38	19 0	19 28	19 46	20 7	20 37	21 19
	11	17 46	18 3	18 20	18 38	19 1	19 28	19 46	20 8	20 37	21 21
	12	17 46	18 3	18 21	18 39	19 1	19 29	19 47	20 9	20 38	21 22
	13	17 46	18 3	18 21	18 39	19 2	19 29	19 47	20 9	20 39	21 23

Sonnenaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Juni 13	6 13	5 56	5 39	5 20	4 58	4 31	4 13	3 51	3 21	2 37
14	6 14	5 57	5 39	5 20	4 58	4 31	4 13	3 50	3 21	2 37
15	6 14	5 57	5 39	5 20	4 58	4 31	4 13	3 50	3 20	2 36
16	6 14	5 57	5 39	5 20	4 58	4 31	4 13	3 50	3 20	2 36
17	6 14	5 57	5 39	5 20	4 58	4 31	4 13	3 50	3 20	2 36
18	6 15	5 58	5 40	5 20	4 58	4 31	4 13	3 50	3 20	2 35
19	6 15	5 58	5 40	5 21	4 59	4 31	4 13	3 50	3 20	2 35
20	6 15	5 58	5 40	5 21	4 59	4 31	4 13	3 50	3 20	2 35
21	6 15	5 58	5 40	5 21	4 59	4 31	4 13	3 50	3 20	2 35
22	6 16	5 58	5 40	5 21	4 59	4 31	4 14	3 51	3 20	2 36
23	6 16	5 59	5 41	5 22	4 59	4 31	4 14	3 51	3 21	2 36
24	6 16	5 59	5 41	5 22	5 0	4 32	4 14	3 51	3 21	2 36
25	6 16	5 59	5 41	5 22	5 0	4 32	4 14	3 51	3 21	2 36
26	6 16	5 59	5 41	5 22	5 0	4 32	4 15	3 52	3 22	2 37
27	6 17	6 0	5 42	5 22	5 0	4 33	4 15	3 52	3 22	2 38
28	6 17	6 0	5 42	5 23	5 1	4 33	4 15	3 53	3 23	2 38
29	6 17	6 0	5 42	5 23	5 1	4 33	4 15	3 53	3 23	2 39
30	6 17	6 0	5 42	5 23	5 1	4 34	4 16	3 54	3 24	2 40
Juli 1	6 17	6 0	5 42	5 23	5 2	4 34	4 16	3 54	3 25	2 41
2	6 17	6 0	5 43	5 24	5 2	4 35	4 17	3 55	3 25	2 42
3	6 18	6 1	5 43	5 24	5 2	4 35	4 18	3 56	3 26	2 43
4	6 18	6 1	5 43	5 24	5 3	4 36	4 19	3 56	3 27	2 44
5	6 18	6 1	5 44	5 25	5 3	4 36	4 19	3 57	3 28	2 46
6	6 18	6 1	5 44	5 25	5 4	4 37	4 20	3 58	3 29	2 47
7	6 18	6 1	5 44	5 25	5 4	4 38	4 21	3 59	3 30	2 48
8	6 18	6 1	5 44	5 26	5 5	4 38	4 21	3 59	3 31	2 50
9	6 18	6 2	5 45	5 26	5 5	4 39	4 22	4 0	3 32	2 51
10	6 18	6 2	5 45	5 27	5 6	4 39	4 23	4 1	3 33	2 53
11	6 18	6 2	5 45	5 27	5 6	4 40	4 23	4 2	3 34	2 54
12	6 18	6 2	5 45	5 27	5 7	4 41	4 24	4 3	3 36	2 56
13	6 18	6 2	5 46	5 28	5 7	4 41	4 25	4 4	3 37	2 58
14	6 18	6 2	5 46	5 28	5 8	4 42	4 26	4 5	3 38	3 0
15	6 18	6 2	5 46	5 28	5 8	4 43	4 27	4 6	3 40	3 2
16	6 18	6 2	5 46	5 29	5 9	4 44	4 28	4 7	3 41	3 3
17	6 18	6 2	5 46	5 29	5 9	4 44	4 29	4 8	3 42	3 5
18	6 18	6 3	5 47	5 30	5 10	4 45	4 30	4 10	3 44	3 7
19	6 18	6 3	5 47	5 30	5 11	4 46	4 31	4 11	3 45	3 9
20	6 18	6 3	5 47	5 30	5 11	4 47	4 32	4 12	3 47	3 11
21	6 18	6 3	5 47	5 31	5 12	4 48	4 33	4 13	3 49	3 14
22	6 18	6 3	5 48	5 31	5 12	4 48	4 33	4 14	3 50	3 16
23	6 18	6 3	5 48	5 32	5 13	4 49	4 34	4 16	3 52	3 18
24	6 18	6 3	5 48	5 32	5 13	4 50	4 35	4 17	3 53	3 20

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Juni 13	17 46	18 3	18 21	18 39	19 2	19 29	19 47	20 9	20 39	21 23
14	17 46	18 3	18 21	18 39	19 2	19 30	19 48	20 10	20 40	21 24
15	17 46	18 3	18 21	18 39	19 2	19 30	19 48	20 10	20 40	21 24
16	17 47	18 4	18 22	18 40	19 3	19 30	19 48	20 11	20 41	21 25
17	17 47	18 4	18 22	18 40	19 3	19 31	19 49	20 11	20 41	21 26
18	17 47	18 4	18 22	18 40	19 3	19 31	19 49	20 12	20 42	21 26
19	17 47	18 4	18 22	18 40	19 4	19 31	19 49	20 12	20 42	21 27
20	17 47	18 5	18 23	18 41	19 4	19 32	19 50	20 12	20 42	21 27
21	17 48	18 5	18 23	18 41	19 4	19 32	19 50	20 13	20 43	21 28
22	17 48	18 5	18 23	18 41	19 4	19 32	19 50	20 13	20 43	21 28
23	17 48	18 5	18 23	18 42	19 5	19 32	19 50	20 13	20 43	21 28
24	17 48	18 5	18 23	18 42	19 5	19 32	19 50	20 13	20 43	21 28
25	17 48	18 6	18 24	18 43	19 5	19 33	19 51	20 13	20 43	21 28
26	17 49	18 6	18 24	18 43	19 5	19 33	19 51	20 13	20 43	21 28
27	17 49	18 6	18 24	18 43	19 5	19 33	19 51	20 13	20 43	21 27
28	17 49	18 6	18 24	18 43	19 5	19 33	19 51	20 13	20 43	21 27
29	17 49	18 6	18 24	18 43	19 5	19 33	19 51	20 13	20 43	21 27
30	17 50	18 7	18 24	18 43	19 5	19 33	19 51	20 13	20 42	21 26
Juli 1	17 50	18 7	18 25	18 43	19 5	19 33	19 51	20 13	20 42	21 26
2	17 50	18 7	18 25	18 43	19 5	19 33	19 51	20 12	20 42	21 25
3	17 50	18 7	18 25	18 43	19 5	19 32	19 50	20 12	20 41	21 24
4	17 51	18 8	18 25	18 43	19 5	19 32	19 50	20 12	20 41	21 23
5	17 51	18 8	18 25	18 43	19 5	19 32	19 50	20 11	20 40	21 22
6	17 51	18 8	18 25	18 43	19 5	19 32	19 50	20 11	20 40	21 21
7	17 51	18 8	18 25	18 43	19 5	19 32	19 49	20 10	20 39	21 20
8	17 52	18 8	18 25	18 43	19 5	19 31	19 49	20 10	20 38	21 19
9	17 52	18 8	18 25	18 43	19 5	19 31	19 49	20 9	20 37	21 18
10	17 52	18 8	18 25	18 43	19 4	19 31	19 49	20 9	20 36	21 16
11	17 52	18 8	18 25	18 43	19 4	19 30	19 47	20 8	20 35	21 15
12	17 53	18 9	18 25	18 43	19 4	19 30	19 47	20 7	20 34	21 13
13	17 53	18 9	18 25	18 43	19 4	19 29	19 46	20 6	20 33	21 12
14	17 53	18 9	18 25	18 43	19 3	19 29	19 46	20 6	20 32	21 10
15	17 53	18 9	18 25	18 43	19 3	19 28	19 45	20 5	20 31	21 9
16	17 54	18 9	18 25	18 43	19 3	19 28	19 44	20 4	20 30	21 7
17	17 54	18 9	18 25	18 42	19 2	19 27	19 43	20 3	20 28	21 5
18	17 54	18 9	18 25	18 42	19 2	19 27	19 42	20 2	20 27	21 3
19	17 54	18 9	18 25	18 42	19 1	19 26	19 41	20 1	20 26	21 1
20	17 54	18 9	18 25	18 42	19 1	19 25	19 40	20 0	20 24	20 59
21	17 55	18 10	18 25	18 41	19 0	19 25	19 39	19 59	20 23	20 57
22	17 55	18 10	18 25	18 41	19 0	19 24	19 38	19 57	20 22	20 55
23	17 55	18 10	18 25	18 41	18 59	19 23	19 37	19 56	20 20	20 53
24	17 55	18 10	18 25	18 41	18 59	19 22	19 36	19 55	20 18	20 51

Sonnenaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Juli 24	6 18	6 3	5 48	5 32	5 13	4 50	4 35	4 17	3 53	3 20
25	6 18	6 3	5 48	5 32	5 14	4 51	4 36	4 18	3 55	3 22
26	6 17	6 3	5 48	5 33	5 15	4 52	4 38	4 20	3 57	3 25
27	6 17	6 3	5 49	5 34	5 15	4 53	4 39	4 21	3 58	3 27
28	6 17	6 3	5 49	5 34	5 16	4 54	4 40	4 22	4 0	3 29
29	6 17	6 3	5 49	5 34	5 16	4 55	4 41	4 24	4 2	3 31
30	6 16	6 3	5 49	5 34	5 17	4 55	4 42	4 25	4 3	3 34
31	6 16	6 3	5 49	5 35	5 18	4 56	4 43	4 26	4 5	3 36
Aug. 1	6 16	6 3	5 49	5 35	5 18	4 57	4 44	4 28	4 7	3 38
2	6 16	6 3	5 50	5 36	5 19	4 58	4 45	4 29	4 9	3 41
3	6 15	6 3	5 50	5 36	5 20	4 59	4 46	4 31	4 10	3 43
4	6 15	6 3	5 50	5 36	5 20	5 0	4 47	4 32	4 12	3 45
5	6 15	6 3	5 50	5 37	5 21	5 1	4 49	4 33	4 14	3 48
6	6 15	6 3	5 50	5 37	5 21	5 2	4 50	4 35	4 16	3 50
7	6 14	6 2	5 50	5 37	5 22	5 3	4 51	4 36	4 18	3 52
8	6 14	6 2	5 50	5 38	5 23	5 4	4 52	4 38	4 19	3 55
9	6 14	6 2	5 50	5 38	5 23	5 5	4 53	4 39	4 21	3 57
10	6 13	6 2	5 50	5 38	5 24	5 6	4 54	4 41	4 23	4 0
11	6 13	6 2	5 50	5 38	5 24	5 7	4 56	4 42	4 25	4 2
12	6 13	6 2	5 51	5 39	5 25	5 8	4 57	4 44	4 27	4 4
13	6 12	6 2	5 51	5 39	5 26	5 9	4 58	4 45	4 29	4 7
14	6 12	6 2	5 51	5 39	5 26	5 10	5 0	4 47	4 31	4 9
15	6 11	6 1	5 51	5 40	5 27	5 10	5 1	4 48	4 32	4 12
16	6 11	6 1	5 51	5 40	5 27	5 11	5 2	4 50	4 34	4 14
17	6 10	6 1	5 51	5 41	5 28	5 12	5 3	4 51	4 36	4 16
18	6 10	6 1	5 51	5 41	5 28	5 13	5 4	4 53	4 38	4 19
19	6 10	6 1	5 51	5 41	5 29	5 14	5 5	4 54	4 40	4 21
20	6 9	6 0	5 51	5 42	5 30	5 15	5 6	4 55	4 42	4 24
21	6 9	6 0	5 51	5 42	5 30	5 16	5 7	4 57	4 44	4 26
22	6 8	5 59	5 51	5 43	5 31	5 17	5 8	4 58	4 46	4 29
23	6 8	5 59	5 51	5 43	5 31	5 18	5 10	5 0	4 47	4 31
24	6 7	5 59	5 51	5 43	5 32	5 19	5 11	5 1	4 49	4 33
25	6 7	5 59	5 51	5 43	5 33	5 20	5 12	5 3	4 51	4 36
26	6 6	5 59	5 51	5 43	5 33	5 21	5 13	5 4	4 53	4 38
27	6 6	5 59	5 51	5 43	5 34	5 22	5 15	5 6	4 55	4 41
28	6 5	5 58	5 51	5 43	5 34	5 23	5 16	5 7	4 57	4 43
29	6 4	5 58	5 51	5 44	5 35	5 24	5 17	5 9	4 59	4 45
30	6 4	5 58	5 51	5 44	5 35	5 25	5 18	5 10	5 1	4 48
31	6 3	5 57	5 51	5 44	5 36	5 26	5 20	5 12	5 2	4 50
Sept. 1	6 3	5 57	5 51	5 44	5 36	5 27	5 21	5 13	5 4	4 52
2	6 2	5 57	5 51	5 45	5 37	5 28	5 22	5 15	5 6	4 55
3	6 2	5 57	5 51	5 45	5 37	5 29	5 23	5 16	5 8	4 57

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Juli 24	17 55	18 10	18 25	18 41	18 59	19 22	19 36	19 55	20 18	20 51
25	17 56	18 10	18 25	18 40	18 58	19 21	19 35	19 54	20 17	20 49
26	17 56	18 10	18 24	18 40	18 58	19 20	19 34	19 52	20 15	20 47
27	17 56	18 10	18 24	18 39	18 57	19 20	19 34	19 51	20 13	20 44
28	17 56	18 10	18 24	18 39	18 56	19 19	19 33	19 50	20 12	20 42
29	17 56	18 10	18 24	18 39	18 56	19 18	19 32	19 48	20 10	20 40
30	17 56	18 10	18 23	18 38	18 55	19 17	19 30	19 47	20 8	20 37
31	17 57	18 10	18 23	18 37	18 54	19 16	19 29	19 45	20 6	20 35
Aug. 1	17 57	18 10	18 23	18 37	18 54	19 15	19 28	19 44	20 4	20 33
2	17 57	18 10	18 23	18 37	18 53	19 14	19 26	19 42	20 3	20 30
3	17 57	18 10	18 22	18 36	18 52	19 13	19 25	19 41	20 1	20 28
4	17 57	18 10	18 22	18 35	18 51	19 12	19 24	19 39	19 59	20 25
5	17 57	18 10	18 22	18 35	18 51	19 10	19 22	19 38	19 57	20 23
6	17 57	18 10	18 22	18 35	18 50	19 9	19 21	19 36	19 55	20 20
7	17 57	18 9	18 21	18 34	18 49	19 8	19 20	19 34	19 53	20 17
8	17 57	18 9	18 21	18 34	18 48	19 7	19 19	19 33	19 51	20 15
9	17 57	18 9	18 21	18 34	18 48	19 6	19 17	19 31	19 48	20 12
10	17 58	18 9	18 20	18 33	18 47	19 4	19 15	19 29	19 46	20 9
11	17 58	18 9	18 20	18 32	18 46	19 3	19 14	19 27	19 44	20 7
12	17 58	18 8	18 19	18 32	18 45	19 2	19 13	19 26	19 42	20 4
13	17 58	18 8	18 19	18 31	18 44	19 1	19 11	19 24	19 40	20 1
14	17 58	18 8	18 19	18 30	18 43	18 59	19 9	19 22	19 38	19 59
15	17 58	18 8	18 18	18 29	18 42	18 58	19 8	19 20	19 35	19 56
16	17 58	18 8	18 18	18 28	18 41	18 57	19 6	19 18	19 33	19 53
17	17 58	18 7	18 17	18 27	18 40	18 55	19 4	19 16	19 31	19 50
18	17 58	18 7	18 17	18 27	18 39	18 54	19 3	19 14	19 29	19 47
19	17 58	18 7	18 17	18 27	18 38	18 52	19 1	19 12	19 26	19 45
20	17 58	18 7	18 16	18 26	18 37	18 51	19 0	19 10	19 24	19 42
21	17 58	18 7	18 16	18 25	18 36	18 50	18 58	19 8	19 22	19 39
22	17 58	18 6	18 15	18 24	18 35	18 48	18 57	19 7	19 19	19 36
23	17 58	18 6	18 15	18 24	18 34	18 47	18 55	19 5	19 17	19 33
24	17 58	18 6	18 14	18 24	18 33	18 45	18 53	19 3	19 14	19 30
25	17 58	18 6	18 14	18 23	18 32	18 44	18 51	19 1	19 12	19 27
26	17 58	18 5	18 13	18 22	18 31	18 42	18 49	18 58	19 10	19 24
27	17 58	18 5	18 12	18 20	18 29	18 41	18 48	18 56	19 7	19 21
28	17 58	18 5	18 12	18 20	18 28	18 39	18 46	18 54	19 5	19 18
29	17 58	18 4	18 11	18 19	18 27	18 38	18 44	18 52	19 2	19 15
30	17 58	18 4	18 11	18 18	18 26	18 36	18 42	18 50	19 0	19 12
31	17 58	18 4	18 10	18 17	18 25	18 35	18 41	18 48	18 57	19 9
Sept. 1	17 58	18 4	18 10	18 16	18 24	18 33	18 39	18 46	18 55	19 6
2	17 58	18 3	18 9	18 15	18 22	18 32	18 38	18 44	18 52	19 3
3	17 58	18 3	18 8	18 14	18 21	18 30	18 36	18 42	18 50	19 0

Sonnenaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Sept. 3	6 2	5 57	5 51	5 45	5 37	5 29	5 23	5 16	5 8	4 57
4	6 1	5 56	5 51	5 45	5 38	5 30	5 24	5 18	5 10	5 0
5	6 1	5 56	5 50	5 45	5 39	5 30	5 25	5 19	5 12	5 2
6	6 0	5 55	5 50	5 45	5 39	5 31	5 27	5 21	5 14	5 4
7	5 59	5 55	5 50	5 46	5 40	5 32	5 28	5 22	5 16	5 7
8	5 59	5 55	5 50	5 46	5 40	5 33	5 29	5 24	5 17	5 9
9	5 58	5 54	5 50	5 46	5 41	5 34	5 30	5 25	5 19	5 11
10	5 57	5 54	5 50	5 46	5 41	5 35	5 32	5 27	5 21	5 14
11	5 57	5 54	5 50	5 46	5 42	5 36	5 33	5 28	5 23	5 16
12	5 56	5 53	5 50	5 46	5 42	5 37	5 34	5 30	5 25	5 18
13	5 56	5 53	5 50	5 47	5 43	5 38	5 35	5 31	5 27	5 21
14	5 55	5 53	5 50	5 47	5 43	5 39	5 36	5 33	5 29	5 23
15	5 54	5 52	5 50	5 47	5 44	5 40	5 37	5 34	5 30	5 25
16	5 54	5 52	5 50	5 48	5 45	5 41	5 39	5 36	5 32	5 28
17	5 53	5 52	5 50	5 48	5 45	5 42	5 40	5 37	5 34	5 30
18	5 53	5 52	5 50	5 48	5 46	5 43	5 42	5 39	5 36	5 33
19	5 52	5 51	5 50	5 48	5 46	5 44	5 43	5 40	5 38	5 35
20	5 51	5 51	5 50	5 49	5 47	5 45	5 44	5 42	5 40	5 37
21	5 51	5 50	5 49	5 49	5 48	5 46	5 45	5 43	5 42	5 40
22	5 50	5 50	5 49	5 49	5 48	5 47	5 46	5 45	5 44	5 42
23	5 49	5 49	5 49	5 49	5 49	5 48	5 47	5 46	5 45	5 44
24	5 49	5 49	5 49	5 49	5 49	5 48	5 48	5 48	5 47	5 47
25	5 48	5 48	5 49	5 49	5 50	5 49	5 49	5 49	5 49	5 49
26	5 48	5 48	5 49	5 49	5 50	5 50	5 50	5 51	5 51	5 51
27	5 47	5 48	5 49	5 50	5 51	5 51	5 51	5 52	5 53	5 54
28	5 46	5 47	5 49	5 50	5 51	5 52	5 53	5 54	5 55	5 56
29	5 46	5 47	5 49	5 50	5 52	5 53	5 54	5 55	5 57	5 59
30	5 45	5 47	5 49	5 50	5 52	5 54	5 55	5 57	5 59	6 1
Okt. 1	5 44	5 46	5 49	5 51	5 53	5 55	5 56	5 58	6 0	6 3
2	5 44	5 46	5 49	5 51	5 54	5 56	5 58	6 0	6 2	6 6
3	5 43	5 46	5 49	5 51	5 54	5 57	5 59	6 1	6 4	6 8
4	5 43	5 46	5 49	5 51	5 55	5 58	6 0	6 3	6 6	6 10
5	5 42	5 45	5 49	5 51	5 55	5 59	6 2	6 5	6 8	6 13
6	5 42	5 45	5 49	5 52	5 56	6 0	6 3	6 6	6 10	6 15
7	5 41	5 45	5 49	5 53	5 57	6 1	6 4	6 8	6 12	6 18
8	5 40	5 44	5 49	5 53	5 57	6 2	6 5	6 9	6 14	6 20
9	5 40	5 44	5 49	5 53	5 58	6 3	6 6	6 11	6 16	6 22
10	5 39	5 43	5 48	5 53	5 58	6 4	6 7	6 12	6 18	6 25
11	5 39	5 43	5 48	5 53	5 59	6 5	6 9	6 14	6 20	6 27
12	5 38	5 43	5 48	5 54	6 0	6 6	6 10	6 16	6 22	6 30
13	5 38	5 43	5 48	5 54	6 0	6 7	6 11	6 17	6 24	6 32
14	5 37	5 43	5 49	5 55	6 1	6 8	6 13	6 19	6 26	6 35

Mittlere Ortszeit — Meridian von Greenwich

Tag		Geographische Breite									
		−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947		h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Sept.	3	17 58	18 3	18 8	18 14	18 21	18 30	18 36	18 42	18 50	19 0
	4	17 58	18 3	18 8	18 14	18 20	18 28	18 34	18 40	18 47	18 57
	5	17 58	18 2	18 7	18 13	18 19	18 27	18 32	18 37	18 45	18 54
	6	17 57	18 2	18 7	18 12	18 17	18 25	18 30	18 35	18 42	18 51
	7	17 57	18 1	18 6	18 11	18 16	18 23	18 28	18 33	18 40	18 48
	8	17 57	18 1	18 5	18 10	18 15	18 22	18 26	18 31	18 37	18 45
	9	17 57	18 1	18 5	18 9	18 14	18 20	18 24	18 29	18 35	18 42
	10	17 57	18 0	18 4	18 8	18 13	18 19	18 22	18 27	18 32	18 39
	11	17 57	18 0	18 3	18 7	18 11	18 17	18 20	18 24	18 30	18 36
	12	17 57	18 0	18 3	18 6	18 10	18 15	18 18	18 22	18 27	18 33
	13	17 57	17 59	18 2	18 5	18 9	18 14	18 16	18 20	18 24	18 30
	14	17 57	17 59	18 2	18 5	18 8	18 12	18 15	18 18	18 22	18 27
	15	17 57	17 59	18 1	18 3	18 6	18 10	18 13	18 16	18 19	18 24
	16	17 57	17 58	18 0	18 2	18 5	18 9	18 11	18 14	18 17	18 21
	17	17 57	17 58	18 0	18 2	18 4	18 7	18 9	18 11	18 14	18 18
	18	17 57	17 58	17 59	18 1	18 3	18 5	18 7	18 9	18 12	18 15
	19	17 57	17 58	17 59	18 0	18 1	18 4	18 5	18 7	18 9	18 12
	20	17 56	17 57	17 58	17 59	18 0	18 2	18 3	18 5	18 7	18 9
	21	17 56	17 56	17 57	17 58	17 59	18 1	18 2	18 3	18 4	18 6
	22	17 56	17 56	17 57	17 57	17 58	17 59	17 59	18 0	18 1	18 3
	23	17 56	17 56	17 56	17 56	17 56	17 57	17 57	17 58	17 59	18 0
	24	17 56	17 56	17 55	17 55	17 55	17 56	17 56	17 56	17 56	17 57
	25	17 56	17 56	17 55	17 55	17 54	17 54	17 54	17 54	17 54	17 54
	26	17 56	17 55	17 54	17 54	17 53	17 52	17 52	17 52	17 51	17 51
	27	17 56	17 55	17 54	17 53	17 52	17 51	17 50	17 49	17 49	17 48
	28	17 56	17 55	17 53	17 52	17 50	17 49	17 48	17 47	17 46	17 45
	29	17 56	17 54	17 52	17 51	17 49	17 47	17 46	17 45	17 43	17 42
	30	17 56	17 54	17 52	17 50	17 48	17 46	17 45	17 43	17 41	17 39
Okt.	1	17 56	17 54	17 51	17 49	17 47	17 44	17 43	17 41	17 38	17 35
	2	17 56	17 54	17 51	17 48	17 45	17 42	17 40	17 38	17 36	17 32
	3	17 55	17 53	17 50	17 47	17 44	17 41	17 38	17 36	17 33	17 29
	4	17 55	17 52	17 49	17 46	17 43	17 39	17 37	17 34	17 31	17 26
	5	17 55	17 52	17 49	17 46	17 42	17 38	17 35	17 32	17 28	17 23
	6	17 55	17 52	17 48	17 44	17 40	17 36	17 33	17 30	17 26	17 20
	7	17 55	17 52	17 48	17 44	17 39	17 34	17 31	17 28	17 23	17 17
	8	17 55	17 51	17 47	17 43	17 38	17 33	17 30	17 26	17 21	17 14
	9	17 55	17 51	17 47	17 42	17 37	17 31	17 28	17 23	17 18	17 12
	10	17 55	17 51	17 46	17 41	17 36	17 30	17 26	17 21	17 16	17 9
	11	17 55	17 50	17 45	17 40	17 35	17 28	17 24	17 19	17 13	17 6
	12	17 55	17 50	17 45	17 40	17 34	17 27	17 23	17 17	17 11	17 3
	13	17 55	17 50	17 44	17 39	17 33	17 25	17 21	17 15	17 8	17 0
	14	17 55	17 50	17 44	17 38	17 31	17 23	17 19	17 13	17 6	16 57

Sonnenaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Okt. 14	5 37	5 43	5 49	5 55	6 1	6 8	6 13	6 19	6 26	6 35
15	5 37	5 43	5 49	5 55	6 1	6 9	6 14	6 20	6 28	6 37
16	5 36	5 42	5 49	5 55	6 2	6 11	6 16	6 22	6 30	6 40
17	5 36	5 42	5 49	5 56	6 3	6 12	6 17	6 24	6 32	6 42
18	5 35	5 42	5 49	5 56	6 3	6 13	6 18	6 25	6 34	6 45
19	5 35	5 42	5 49	5 56	6 4	6 14	6 19	6 27	6 36	6 47
20	5 34	5 41	5 49	5 56	6 5	6 15	6 21	6 28	6 38	6 49
21	5 34	5 41	5 49	5 56	6 5	6 16	6 22	6 30	6 40	6 52
22	5 34	5 41	5 49	5 57	6 6	6 17	6 23	6 32	6 42	6 54
23	5 33	5 41	5 49	5 57	6 7	6 18	6 24	6 33	6 44	6 57
24	5 33	5 41	5 49	5 57	6 7	6 19	6 25	6 35	6 46	7 0
25	5 32	5 41	5 49	5 58	6 8	6 20	6 27	6 37	6 48	7 2
26	5 32	5 41	5 49	5 58	6 9	6 21	6 28	6 38	6 50	7 5
27	5 32	5 41	5 50	5 59	6 10	6 23	6 30	6 40	6 52	7 7
28	5 31	5 40	5 50	5 59	6 10	6 24	6 31	6 42	6 54	7 10
29	5 31	5 40	5 50	5 59	6 11	6 25	6 32	6 43	6 56	7 12
30	5 31	5 40	5 50	6 0	6 12	6 26	6 34	6 45	6 58	7 15
31	5 30	5 40	5 50	6 0	6 13	6 27	6 36	6 47	7 0	7 17
Nov. 1	5 30	5 40	5 51	6 1	6 14	6 28	6 37	6 48	7 2	7 20
2	5 30	5 40	5 51	6 1	6 14	6 29	6 38	6 50	7 4	7 23
3	5 29	5 40	5 51	6 2	6 15	6 30	6 40	6 52	7 6	7 25
4	5 29	5 40	5 51	6 2	6 16	6 32	6 41	6 53	7 8	7 28
5	5 29	5 40	5 52	6 3	6 17	6 33	6 43	6 55	7 10	7 30
6	5 29	5 40	5 52	6 3	6 17	6 34	6 45	6 57	7 12	7 33
7	5 29	5 40	5 52	6 4	6 18	6 35	6 46	6 58	7 14	7 35
8	5 28	5 40	5 52	6 4	6 19	6 36	6 47	7 0	7 16	7 38
9	5 28	5 40	5 53	6 5	6 20	6 37	6 48	7 2	7 18	7 40
10	5 28	5 40	5 53	6 5	6 20	6 38	6 49	7 3	7 20	7 43
11	5 28	5 40	5 53	6 6	6 21	6 40	6 51	7 5	7 22	7 46
12	5 28	5 40	5 53	6 6	6 22	6 41	6 52	7 6	7 24	7 48
13	5 28	5 41	5 54	6 7	6 23	6 42	6 53	7 8	7 26	7 51
14	5 28	5 41	5 54	6 8	6 24	6 43	6 55	7 10	7 28	7 53
15	5 28	5 41	5 54	6 8	6 24	6 44	6 56	7 11	7 30	7 56
16	5 28	5 41	5 55	6 9	6 25	6 45	6 57	7 13	7 32	7 58
17	5 28	5 41	5 55	6 9	6 26	6 47	6 59	7 15	7 34	8 1
18	5 28	5 41	5 55	6 10	6 27	6 48	7 0	7 16	7 36	8 3
19	5 28	5 42	5 56	6 11	6 28	6 49	7 2	7 18	7 38	8 6
20	5 28	5 42	5 56	6 11	6 28	6 50	7 3	7 19	7 40	8 8
21	5 28	5 42	5 57	6 12	6 29	6 51	7 4	7 21	7 42	8 11
22	5 28	5 42	5 57	6 12	6 30	6 52	7 6	7 23	7 44	8 13
23	5 28	5 43	5 58	6 13	6 31	6 53	7 7	7 24	7 46	8 15
24	5 28	5 43	5 58	6 13	6 32	6 54	7 8	7 26	7 48	8 18

Sonnenuntergang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Okt. 14	17 55	17 50	17 44	17 38	17 31	17 23	17 19	17 13	17 6	16 57
15	17 55	17 49	17 43	17 37	17 30	17 22	17 17	17 11	17 3	16 54
16	17 56	17 49	17 43	17 36	17 29	17 20	17 15	17 9	17 1	16 51
17	17 56	17 49	17 43	17 36	17 28	17 19	17 14	17 7	16 59	16 48
18	17 56	17 49	17 42	17 35	17 27	17 17	17 12	17 5	16 56	16 45
19	17 56	17 49	17 42	17 35	17 26	17 16	17 10	17 3	16 54	16 42
20	17 56	17 49	17 41	17 34	17 25	17 15	17 9	17 1	16 52	16 40
21	17 56	17 49	17 41	17 33	17 24	17 13	17 7	16 59	16 49	16 37
22	17 56	17 48	17 40	17 32	17 23	17 12	17 5	16 57	16 47	16 34
23	17 56	17 48	17 40	17 32	17 22	17 10	17 3	16 55	16 45	16 31
24	17 56	17 48	17 40	17 31	17 21	17 9	17 2	16 53	16 42	16 28
25	17 56	17 48	17 39	17 30	17 20	17 8	17 0	16 51	16 40	16 26
26	17 57	17 48	17 39	17 30	17 19	17 6	16 58	16 49	16 38	16 23
27	17 57	17 48	17 38	17 29	17 18	17 5	16 57	16 47	16 36	16 20
28	17 57	17 48	17 38	17 28	17 17	17 4	16 56	16 46	16 33	16 17
29	17 57	17 48	17 38	17 27	17 16	17 2	16 54	16 44	16 31	16 15
30	17 57	17 47	17 37	17 27	17 16	17 1	16 53	16 42	16 29	16 12
31	17 57	17 47	17 37	17 27	17 15	17 0	16 51	16 40	16 27	16 9
Nov. 1	17 58	17 47	17 37	17 26	17 14	16 59	16 50	16 39	16 25	16 7
2	17 58	17 47	17 37	17 26	17 13	16 58	16 49	16 37	16 23	16 4
3	17 58	17 47	17 36	17 25	17 12	16 56	16 47	16 35	16 21	16 1
4	17 58	17 47	17 36	17 25	17 11	16 55	16 46	16 34	16 19	15 59
5	17 59	17 48	17 36	17 25	17 11	16 54	16 44	16 32	16 17	15 56
6	17 59	17 48	17 36	17 24	17 10	16 53	16 43	16 30	16 15	15 54
7	17 59	17 48	17 36	17 24	17 9	16 52	16 42	16 29	16 13	15 51
8	17 59	17 48	17 36	17 24	17 9	16 51	16 40	16 27	16 11	15 49
9	18 0	17 48	17 35	17 23	17 8	16 50	16 39	16 26	16 9	15 46
10	18 0	17 48	17 35	17 23	17 7	16 49	16 38	16 24	16 7	15 44
11	18 0	17 48	17 35	17 23	17 7	16 48	16 37	16 23	16 5	15 42
12	18 1	17 48	17 35	17 22	17 6	16 47	16 36	16 21	16 3	15 39
13	18 1	17 48	17 35	17 22	17 6	16 46	16 35	16 20	16 2	15 37
14	18 1	17 48	17 35	17 21	17 5	16 45	16 34	16 19	16 0	15 35
15	18 2	17 49	17 35	17 21	17 5	16 45	16 33	16 17	15 58	15 33
16	18 2	17 49	17 35	17 21	17 4	16 44	16 32	16 16	15 57	15 30
17	18 2	17 49	17 35	17 21	17 4	16 43	16 31	16 15	15 55	15 28
18	18 3	17 49	17 35	17 21	17 3	16 42	16 30	16 14	15 53	15 26
19	18 3	17 49	17 35	17 21	17 3	16 42	16 29	16 12	15 52	15 24
20	18 4	17 50	17 35	17 21	17 3	16 41	16 28	16 11	15 50	15 22
21	18 4	17 50	17 35	17 20	17 2	16 40	16 27	16 10	15 49	15 20
22	18 4	17 50	17 35	17 20	17 2	16 40	16 26	16 9	15 48	15 18
23	18 5	17 50	17 35	17 20	17 2	16 39	16 25	16 8	15 46	15 17
24	18 5	17 50	17 35	17 20	17 1	16 38	16 24	16 7	15 45	15 15

Sonnenaufgang 1947

Mittlere Ortszeit | Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Nov. 24	5 28	5 43	5 58	6 13	6 32	6 54	7 8	7 26	7 48	8 18
25	5 28	5 43	5 58	6 14	6 33	6 56	7 10	7 27	7 49	8 20
26	5 28	5 43	5 59	6 15	6 33	6 57	7 11	7 29	7 51	8 22
27	5 28	5 43	5 59	6 15	6 34	6 58	7 12	7 30	7 53	8 25
28	5 29	5 44	6 0	6 16	6 35	6 59	7 13	7 32	7 55	8 27
29	5 29	5 44	6 0	6 17	6 36	7 0	7 14	7 33	7 56	8 29
30	5 29	5 45	6 1	6 18	6 37	7 1	7 15	7 34	7 58	8 31
Dez. 1	5 29	5 45	6 1	6 18	6 38	7 2	7 16	7 36	8 0	8 33
2	5 29	5 45	6 2	6 19	6 38	7 3	7 17	7 37	8 1	8 35
3	5 30	5 46	6 2	6 19	6 39	7 4	7 19	7 38	8 3	8 37
4	5 30	5 46	6 3	6 20	6 40	7 5	7 20	7 40	8 4	8 39
5	5 30	5 46	6 3	6 20	6 41	7 6	7 21	7 41	8 6	8 41
6	5 31	5 47	6 4	6 21	6 42	7 7	7 22	7 42	8 7	8 43
7	5 31	5 47	6 4	6 21	6 42	7 8	7 23	7 43	8 9	8 45
8	5 31	5 48	6 5	6 22	6 43	7 9	7 24	7 44	8 10	8 47
9	5 32	5 48	6 5	6 22	6 44	7 9	7 25	7 46	8 12	8 48
10	5 32	5 49	6 6	6 23	6 44	7 10	7 26	7 47	8 13	8 50
11	5 32	5 49	6 6	6 24	6 45	7 11	7 27	7 48	8 14	8 51
12	5 33	5 50	6 7	6 25	6 46	7 12	7 28	7 49	8 15	8 53
13	5 33	5 50	6 7	6 25	6 46	7 13	7 29	7 50	8 16	8 54
14	5 34	5 51	6 8	6 26	6 47	7 14	7 30	7 50	8 17	8 55
15	5 34	5 51	6 9	6 27	6 48	7 14	7 30	7 51	8 18	8 56
16	5 34	5 51	6 9	6 27	6 48	7 15	7 31	7 52	8 19	8 58
17	5 35	5 52	6 10	6 28	6 49	7 16	7 32	7 53	8 20	8 59
18	5 35	5 52	6 10	6 28	6 50	7 16	7 32	7 54	8 21	8 59
19	5 36	5 53	6 11	6 29	6 50	7 17	7 33	7 54	8 22	9 0
20	5 36	5 53	6 11	6 30	6 51	7 18	7 34	7 55	8 22	9 1
21	5 37	5 54	6 12	6 30	6 51	7 18	7 35	7 56	8 23	9 2
22	5 37	5 54	6 12	6 30	6 52	7 19	7 35	7 56	8 23	9 2
23	5 38	5 55	6 13	6 31	6 52	7 19	7 36	7 57	8 24	9 3
24	5 38	5 55	6 13	6 31	6 53	7 20	7 36	7 57	8 24	9 3
25	5 39	5 56	6 14	6 32	6 53	7 20	7 37	7 58	8 25	9 4
26	5 39	5 56	6 14	6 32	6 54	7 20	7 37	7 58	8 25	9 4
27	5 40	5 57	6 15	6 33	6 54	7 21	7 37	7 58	8 25	9 4
28	5 40	5 57	6 15	6 33	6 54	7 21	7 37	7 58	8 25	9 4
29	5 41	5 58	6 15	6 33	6 55	7 21	7 37	7 59	8 25	9 4
30	5 41	5 58	6 16	6 34	6 55	7 22	7 38	7 59	8 25	9 4
31	5 42	5 59	6 16	6 34	6 55	7 22	7 38	7 59	8 25	9 3

Sonnenuntergang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Nov. 24	18 5	17 50	17 35	17 20	17 1	16 38	16 24	16 7	15 45	15 15
25	18 6	17 51	17 35	17 20	17 1	16 38	16 24	16 6	15 44	15 13
26	18 6	17 51	17 35	17 20	17 1	16 37	16 23	16 5	15 43	15 11
27	18 7	17 52	17 36	17 20	17 0	16 37	16 23	16 5	15 42	15 10
28	18 7	17 52	17 36	17 20	17 0	16 37	16 23	16 4	15 40	15 8
29	18 8	17 52	17 36	17 20	17 0	16 36	16 22	16 3	15 39	15 7
30	18 8	17 52	17 36	17 20	17 0	16 36	16 21	16 2	15 38	15 5
Dez. 1	18 9	17 53	17 36	17 20	17 0	16 36	16 21	16 2	15 38	15 4
2	18 9	17 53	17 37	17 21	17 0	16 35	16 20	16 1	15 37	15 3
3	18 10	17 54	17 37	17 21	17 0	16 35	16 20	16 1	15 36	15 1
4	18 10	17 54	17 37	17 21	17 0	16 35	16 20	16 0	15 35	15 0
5	18 11	17 55	17 38	17 21	17 0	16 35	16 20	16 0	15 35	14 59
6	18 11	17 55	17 38	17 21	17 0	16 35	16 19	15 59	15 34	14 58
7	18 12	17 55	17 38	17 21	17 0	16 35	16 19	15 59	15 33	14 57
8	18 12	17 56	17 39	17 21	17 0	16 35	16 19	15 59	15 33	14 56
9	18 13	17 56	17 39	17 21	17 0	16 35	16 18	15 58	15 33	14 56
10	18 13	17 56	17 39	17 22	17 1	16 35	16 18	15 58	15 32	14 55
11	18 14	17 57	17 40	17 22	17 1	16 35	16 18	15 58	15 32	14 55
12	18 14	17 57	17 40	17 22	17 1	16 35	16 18	15 58	15 32	14 54
13	18 15	17 58	17 40	17 22	17 1	16 35	16 18	15 58	15 32	14 54
14	18 15	17 58	17 41	17 23	17 2	16 35	16 18	15 58	15 32	14 53
15	18 16	17 59	17 41	17 23	17 2	16 35	16 18	15 58	15 32	14 53
16	18 16	17 59	17 42	17 24	17 2	16 36	16 19	15 58	15 32	14 53
17	18 17	18 0	17 42	17 24	17 3	16 36	16 19	15 59	15 32	14 53
18	18 17	18 0	17 43	17 25	17 3	16 36	16 19	15 59	15 32	14 53
19	18 18	18 1	17 43	17 25	17 4	16 37	16 20	15 59	15 32	14 53
20	18 19	18 2	17 44	17 26	17 4	16 37	16 21	16 0	15 32	14 54
21	18 19	18 2	17 44	17 26	17 4	16 38	16 21	16 0	15 33	14 54
22	18 20	18 3	17 45	17 27	17 5	16 38	16 22	16 1	15 33	14 54
23	18 20	18 3	17 45	17 27	17 5	16 39	16 22	16 1	15 34	14 55
24	18 20	18 3	17 46	17 28	17 6	16 39	16 23	16 2	15 34	14 56
25	18 21	18 4	17 46	17 28	17 7	16 40	16 23	16 2	15 35	14 56
26	18 21	18 4	17 47	17 29	17 7	16 40	16 24	16 3	15 36	14 57
27	18 22	18 5	17 47	17 29	17 8	16 41	16 25	16 4	15 37	14 58
28	18 22	18 5	17 48	17 30	17 8	16 42	16 26	16 4	15 37	14 59
29	18 23	18 6	17 48	17 30	17 9	16 43	16 26	16 5	15 38	15 0
30	18 23	18 6	17 49	17 31	17 10	16 43	16 27	16 6	15 39	15 1
31	18 24	18 7	17 49	17 31	17 10	16 44	16 28	16 7	15 40	15 3

Mondaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Jan. 0	12 3	12 4	12 4	12 5	12 6	12 6	12 7	12 7	12 8	12 9
1	12 54	12 50	12 46	12 42	12 38	12 32	12 29	12 25	12 20	12 14
2	13 47	13 39	13 30	13 22	13 13	13 1	12 53	12 44	12 33	12 20
3	14 44	14 32	14 20	14 6	13 52	13 33	13 21	13 7	12 50	12 28
4	15 47	15 30	15 13	14 56	14 37	14 12	13 56	13 37	13 14	12 41
5	16 52	16 33	16 14	15 53	15 30	15 0	14 40	14 18	13 48	13 4
6	17 59	17 39	17 18	16 57	16 32	16 1	15 40	15 15	14 40	13 48
7	19 4	18 45	18 26	18 5	17 41	17 10	16 50	16 26	15 52	15 2
8	20 5	19 48	19 31	19 13	18 52	18 26	18 9	17 48	17 19	16 40
9	20 59	20 46	20 33	20 18	20 2	19 41	19 28	19 12	18 52	18 24
10	21 48	21 39	21 30	21 20	21 8	20 54	20 45	20 35	20 22	20 4
11	22 32	22 27	22 22	22 17	22 11	22 4	21 59	21 53	21 47	21 37
12	23 13	23 12	23 12	23 11	23 10	23 9	23 9	23 8	23 7	23 6
13	23 52	23 56	23 59	— —	— —	— —	— —	— —	— —	— —
14	— —	— —	— —	0 2	0 6	0 12	0 16	0 20	0 25	0 31
15	0 31	0 38	0 46	0 54	1 2	1 14	1 22	1 30	1 40	1 54
16	1 11	1 22	1 32	1 44	1 58	2 15	2 26	2 39	2 55	3 18
17	1 52	2 6	2 20	2 36	2 54	3 16	3 30	3 47	4 10	4 41
18	2 36	2 52	3 9	3 28	3 49	4 16	4 33	4 54	5 22	6 2
19	3 22	3 41	4 0	4 20	4 44	5 14	5 34	5 58	6 30	7 19
20	4 10	4 30	4 50	5 12	5 36	6 8	6 28	6 54	7 28	8 22
21	5 1	5 21	5 41	6 2	6 26	6 57	7 17	7 43	8 16	9 6
22	5 52	6 11	6 29	6 49	7 12	7 41	7 59	8 22	8 52	9 36
23	6 44	7 0	7 16	7 34	7 54	8 19	8 34	8 53	9 18	9 52
24	7 35	7 48	8 0	8 15	8 32	8 51	9 3	9 18	9 37	10 3
25	8 24	8 34	8 43	8 53	9 5	9 20	9 29	9 39	9 52	10 9
26	9 12	9 18	9 24	9 30	9 37	9 46	9 51	9 57	10 5	10 14
27	10 1	10 2	10 4	10 6	10 7	10 10	10 12	10 14	10 16	10 19
28	10 49	10 47	10 45	10 42	10 39	10 35	10 33	10 30	10 27	10 23
29	11 40	11 33	11 27	11 19	11 12	11 2	10 56	10 48	10 39	10 28
30	12 34	12 23	12 11	12 0	11 47	11 32	11 22	11 9	10 54	10 35
31	13 31	13 16	13 1	12 46	12 28	12 6	11 52	11 35	11 14	10 44
Febr. 1	14 33	14 15	13 57	13 38	13 16	12 48	12 31	12 9	11 42	11 0
2	15 37	15 17	14 57	14 36	14 12	13 40	13 21	12 56	12 23	11 33
3	16 42	16 22	16 2	15 40	15 16	14 44	14 24	13 58	13 23	12 30
4	17 44	17 26	17 7	16 48	16 25	15 56	15 40	15 15	14 42	13 57
5	18 42	18 27	18 12	17 55	17 36	17 12	16 58	16 39	16 14	15 40
6	19 35	19 23	19 12	19 0	18 46	18 28	18 18	18 4	17 46	17 24
7	20 22	20 15	20 8	20 0	19 52	19 41	19 35	19 27	19 16	19 4
8	21 5	21 3	21 0	20 58	20 55	20 51	20 48	20 45	20 41	20 37
9	21 46	21 48	21 50	21 52	21 54	21 57	21 59	22 1	22 3	22 6
10	22 26	22 32	22 38	22 45	22 52	23 1	23 7	23 13	23 22	23 33

Monduntergang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Jan. 0	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
1	0 24	0 26	0 27	0 29	0 31	0 34	0 35	0 37	0 39	0 42
2	1 7	1 13	1 19	1 26	1 33	1 42	1 48	1 55	2 3	2 14
3	1 55	2 4	2 14	2 25	2 38	2 54	3 4	3 16	3 32	3 52
4	2 44	2 59	3 14	3 29	3 47	4 10	4 24	4 41	5 4	5 36
5	3 41	3 59	4 17	4 36	4 58	5 27	5 45	6 7	6 37	7 20
6	4 44	5 4	5 24	5 45	6 10	6 41	7 1	7 26	8 1	8 53
7	5 50	6 11	6 30	6 52	7 17	7 48	8 8	8 33	9 7	9 58
8	6 57	7 16	7 34	7 53	8 16	8 44	9 2	9 24	9 53	10 33
9	8 1	8 17	8 31	8 48	9 6	9 29	9 43	10 0	10 22	10 52
10	9 0	9 12	9 23	9 35	9 48	10 5	10 16	10 28	10 43	11 3
11	9 55	10 2	10 9	10 17	10 25	10 35	10 42	10 49	10 58	11 10
12	10 46	10 49	10 51	10 54	10 58	11 2	11 4	11 7	11 10	11 15
13	11 34	11 33	11 32	11 30	11 28	11 26	11 25	11 23	11 21	11 19
14	12 21	12 16	12 11	12 5	11 58	11 50	11 45	11 40	11 33	11 23
15	13 8	12 59	12 50	12 40	12 29	12 15	12 7	11 57	11 44	11 28
16	13 55	13 43	13 30	13 17	13 1	12 42	12 30	12 16	11 58	11 34
17	14 44	14 28	14 12	13 56	13 37	13 13	12 57	12 39	12 16	11 43
18	15 33	15 15	14 58	14 38	14 16	13 48	13 30	13 8	12 39	11 58
19	16 24	16 4	15 45	15 24	15 0	14 29	14 9	13 44	13 11	12 22
20	17 15	16 54	16 34	16 13	15 48	15 16	14 56	14 30	13 56	13 2
21	18 5	17 45	17 26	17 5	16 41	16 10	15 51	15 26	14 52	14 2
22	18 52	18 35	18 17	17 59	17 36	17 9	16 51	16 29	16 0	15 17
23	19 38	19 23	19 8	18 52	18 34	18 10	17 55	17 37	17 14	16 41
24	20 21	20 10	19 58	19 45	19 31	19 14	19 2	18 48	18 31	18 8
25	21 2	20 55	20 47	20 39	20 29	20 17	20 9	20 1	19 49	19 34
26	21 43	21 39	21 35	21 31	21 26	21 21	21 17	21 13	21 7	21 0
27	22 23	22 23	22 24	22 24	22 25	22 25	22 25	22 26	22 26	22 27
28	23 4	23 9	23 13	23 18	23 24	23 31	23 36	23 41	23 47	23 56
29	23 48	23 56	— —	— —	— —	— —	— —	— —	— —	— —
30	— —	— —	0 5	0 15	0 26	0 40	0 49	0 58	1 11	1 29
31	0 35	0 48	1 1	1 15	1 31	1 51	2 4	2 19	2 39	3 6
Febr. 1	1 27	1 44	2 0	2 18	2 39	3 5	3 21	3 41	4 9	4 47
2	2 25	2 44	3 3	3 24	3 48	4 18	4 37	5 2	5 34	6 24
3	3 28	3 48	4 8	4 30	4 55	5 27	5 47	6 13	6 48	7 41
4	4 33	4 53	5 12	5 33	5 57	6 27	6 46	7 10	7 42	8 29
5	5 39	5 56	6 12	6 31	6 51	7 17	7 33	7 53	8 19	8 54
6	6 41	6 54	7 7	7 22	7 38	7 58	8 10	8 25	8 43	9 9
7	7 39	7 48	7 57	8 7	8 18	8 31	8 40	8 49	9 1	9 17
8	8 33	8 38	8 43	8 48	8 53	9 0	9 4	9 9	9 15	9 23
9	9 24	9 24	9 25	9 25	9 25	9 26	9 26	9 27	9 27	9 28
10	10 13	10 9	10 5	10 1	9 57	9 51	9 47	9 43	9 38	9 32

Mondaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Febr. 10	22 26	22 32	22 38	22 45	22 52	23 1	23 7	23 13	23 22	23 33
11	23 6	23 16	23 26	23 37	23 48	— —	— —	— —	— —	— —
12	23 48	— —	— —	— —	— —	0 4	0 13	0 25	0 39	0 59
13	— —	0 1	0 14	0 29	0 45	1 6	1 19	1 35	1 55	2 24
14	0 31	0 47	1 3	1 21	1 41	2 7	2 23	2 43	3 10	3 47
15	1 16	1 35	1 54	2 14	2 37	3 6	3 24	3 48	4 20	5 7
16	2 6	2 24	2 44	3 5	3 30	4 2	4 21	4 48	5 22	6 16
17	2 54	3 15	3 35	3 56	4 21	4 53	5 12	5 39	6 14	7 8
18	3 46	4 5	4 24	4 45	5 8	5 38	5 56	6 22	6 53	7 40
19	4 37	4 55	5 12	5 30	5 51	6 18	6 34	6 55	7 22	8 0
20	5 29	5 43	5 58	6 13	6 30	6 52	7 6	7 22	7 43	8 12
21	6 19	6 30	6 41	6 53	7 6	7 22	7 32	7 44	8 0	8 19
22	7 9	7 16	7 23	7 30	7 39	7 49	7 55	8 3	8 12	8 24
23	7 57	8 1	8 3	8 7	8 10	8 14	8 17	8 20	8 24	8 29
24	8 47	8 45	8 44	8 43	8 41	8 39	8 38	8 36	8 34	8 32
25	9 37	9 31	9 26	9 20	9 13	9 5	9 0	8 54	8 46	8 37
26	10 30	10 20	10 10	9 59	9 48	9 33	9 24	9 13	9 0	8 43
27	11 26	11 11	10 58	10 43	10 26	10 5	9 52	9 36	9 16	8 50
28	12 24	12 7	11 50	11 31	11 10	10 44	10 28	10 7	9 40	9 4
März 1	13 26	13 6	12 47	12 26	12 1	11 31	11 13	10 48	10 16	9 28
2	14 29	14 8	13 48	13 26	13 0	12 29	12 9	11 42	11 6	10 13
3	15 30	15 10	14 51	14 30	14 6	13 35	13 17	12 51	12 17	11 26
4	16 28	16 11	15 54	15 36	15 15	14 48	14 32	14 11	13 42	13 2
5	17 23	17 8	16 54	16 40	16 24	16 3	15 50	15 34	15 13	14 45
6	18 10	18 1	17 52	17 42	17 31	17 17	17 7	16 58	16 44	16 26
7	18 55	18 51	18 46	18 41	18 35	18 28	18 23	18 18	18 12	18 3
8	19 38	19 38	19 38	19 37	19 37	19 37	19 37	19 36	19 36	19 36
9	20 19	20 23	20 27	20 32	20 37	20 43	20 47	20 52	20 58	21 5
10	21 0	21 8	21 16	21 25	21 35	21 48	21 56	22 5	22 18	22 33
11	21 41	21 53	22 5	22 18	22 33	22 52	23 3	23 18	23 36	— —
12	22 24	22 40	22 55	23 11	23 30	23 54	— —	— —	— —	0 1
13	23 10	23 28	23 45	— —	— —	— —	0 10	0 29	0 53	1 27
14	23 58	— —	— —	0 5	0 27	0 55	1 13	1 37	2 7	2 51
15	— —	0 17	0 36	0 58	1 22	1 53	2 13	2 39	3 14	4 6
16	0 46	1 7	1 27	1 49	2 14	2 47	3 8	3 34	4 10	5 6
17	1 38	1 57	2 17	2 38	3 3	3 34	3 54	4 19	4 53	5 44
18	2 29	2 47	3 5	3 25	3 48	4 16	4 34	4 56	5 26	6 8
19	3 20	3 36	3 52	4 9	4 28	4 52	5 7	5 25	5 48	6 21
20	4 11	4 24	4 36	4 49	5 4	5 23	5 35	5 49	6 6	6 29
21	5 1	5 10	5 18	5 28	5 38	5 51	5 59	6 8	6 20	6 35
22	5 51	5 55	6 0	6 4	6 10	6 17	6 21	6 26	6 31	6 39
23	6 41	6 41	6 41	6 41	6 42	6 42	6 42	6 42	6 42	6 43

Monduntergang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Febr. 10	10 13	10 9	10 5	10 1	9 57	9 51	9 47	9 43	9 38	9 32
11	11 1	10 53	10 45	10 37	10 28	10 16	10 8	10 0	9 50	9 36
12	11 49	11 37	11 26	11 14	11 0	10 42	10 31	10 19	10 3	9 42
13	12 38	12 23	12 8	11 53	11 35	11 12	10 58	10 41	10 19	9 49
14	13 28	13 10	12 53	12 34	12 12	11 46	11 29	11 7	10 40	10 1
15	14 18	13 58	13 39	13 18	12 55	12 24	12 5	11 41	11 9	10 21
16	15 9	14 48	14 28	14 7	13 42	13 10	12 50	12 24	11 49	10 55
17	15 59	15 39	15 19	14 58	14 33	14 2	13 42	13 16	12 41	11 48
18	16 48	16 29	16 11	15 51	15 28	14 59	14 41	14 17	13 46	13 0
19	17 34	17 18	17 2	16 45	16 25	16 0	15 44	15 25	14 59	14 23
20	18 18	18 6	17 53	17 39	17 24	17 4	16 51	16 36	16 16	15 50
21	19 1	18 52	18 43	18 33	18 22	18 8	17 59	17 49	17 35	17 18
22	19 42	19 37	19 32	19 27	19 20	19 13	19 8	19 2	18 55	18 46
23	20 23	20 22	20 21	20 20	20 19	20 18	20 17	20 16	20 15	20 14
24	21 4	21 7	21 11	21 15	21 19	21 24	21 27	21 31	21 36	21 43
25	21 46	21 54	22 2	22 10	22 20	22 32	22 40	22 48	23 0	23 15
26	22 32	22 44	22 56	23 9	23 24	23 42	23 54	— —	— —	— —
27	23 22	23 37	23 53	— —	— —	— —	— —	0 8	0 26	0 50
28	— —	— —	— —	0 10	0 29	0 54	1 10	1 29	1 54	2 29
März 1	0 16	0 35	0 53	1 13	1 36	2 6	2 24	2 48	3 20	4 6
2	1 15	1 36	1 56	2 18	2 42	3 14	3 34	4 0	4 36	5 30
3	2 18	2 38	2 58	3 20	3 45	4 16	4 36	5 1	5 35	6 27
4	3 21	3 40	3 58	4 18	4 40	5 8	5 26	5 48	6 17	6 58
5	4 23	4 39	4 54	5 10	5 28	5 51	6 6	6 23	6 45	7 15
6	5 22	5 34	5 45	5 57	6 10	6 27	6 38	6 50	7 4	7 25
7	6 18	6 25	6 32	6 39	6 47	6 58	7 4	7 11	7 20	7 31
8	7 11	7 13	7 16	7 18	7 21	7 25	7 27	7 29	7 32	7 36
9	8 1	7 59	7 57	7 55	7 53	7 50	7 48	7 46	7 44	7 40
10	8 51	8 44	8 38	8 32	8 24	8 15	8 9	8 3	7 55	7 44
11	9 40	9 29	9 19	9 9	8 56	8 41	8 32	8 21	8 7	7 49
12	10 29	10 15	10 1	9 47	9 30	9 10	8 57	8 41	8 22	7 55
13	11 19	11 2	10 46	10 28	10 7	9 42	9 26	9 6	8 40	8 5
14	12 10	11 51	11 32	11 12	10 49	10 19	10 1	9 37	9 6	8 21
15	13 1	12 41	12 21	11 59	11 34	11 2	10 42	10 16	9 41	8 48
16	13 51	13 31	13 11	12 49	12 24	11 52	11 31	11 4	10 29	9 33
17	14 40	14 21	14 2	13 41	13 17	12 47	12 27	12 2	11 28	10 38
18	15 28	15 11	14 54	14 35	14 14	13 47	13 30	13 8	12 40	11 58
19	16 13	15 59	15 45	15 30	15 12	14 50	14 35	14 18	13 56	13 25
20	16 56	16 46	16 35	16 24	16 10	15 54	15 43	15 31	15 16	14 54
21	17 38	17 32	17 25	17 18	17 10	16 59	16 52	16 45	16 36	16 23
22	18 19	18 17	18 15	18 12	18 9	18 5	18 3	18 0	17 57	17 53
23	19 1	19 3	19 5	19 7	19 10	19 13	19 15	19 17	19 20	19 23

Mondaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
März 23	6 41	6 41	6 41	6 41	6 42	6 42	6 42	6 42	6 42	6 43
24	7 33	7 27	7 23	7 19	7 13	7 8	7 4	6 59	6 54	6 47
25	8 25	8 16	8 7	7 58	7 47	7 35	7 27	7 18	7 6	6 51
26	9 20	9 7	8 54	8 41	8 25	8 6	7 54	7 40	7 22	6 58
27	10 19	10 2	9 46	9 28	9 8	8 43	8 27	8 8	7 43	7 9
28	11 20	11 0	10 42	10 21	9 57	9 27	9 8	8 44	8 14	7 28
29	12 22	12 2	11 41	11 19	10 53	10 21	10 1	9 35	8 58	8 5
30	13 23	13 3	12 43	12 21	11 56	11 24	11 4	10 38	10 2	9 8
31	14 21	14 3	13 44	13 25	13 2	12 34	12 16	11 53	11 22	10 38
April 1	15 15	15 0	14 44	14 29	14 10	13 46	13 31	13 14	12 50	12 17
2	16 3	15 52	15 41	15 30	15 16	14 59	14 48	14 36	14 20	13 57
3	16 49	16 42	16 35	16 28	16 20	16 10	16 4	15 56	15 46	15 34
4	17 31	17 29	17 27	17 25	17 22	17 18	17 16	17 14	17 11	17 7
5	18 12	18 14	18 17	18 19	18 22	18 26	18 28	18 30	18 33	18 37
6	18 53	18 59	19 6	19 13	19 21	19 31	19 37	19 45	19 54	20 6
7	19 34	19 45	19 55	20 7	20 20	20 36	20 46	20 58	21 14	21 35
8	20 17	20 31	20 45	21 0	21 18	21 40	21 54	22 11	22 33	23 3
9	21 2	21 19	21 36	21 54	22 16	22 43	23 0	23 21	23 50	— —
10	21 49	22 8	22 28	22 48	23 12	23 43	— —	— —	— —	0 31
11	22 38	22 58	23 18	23 40	— —	— —	0 3	0 28	1 1	1 52
12	23 28	23 49	— —	— —	0 6	0 39	0 59	1 26	2 2	3 0
13	— —	— —	0 9	0 31	0 56	1 29	1 50	2 16	2 52	3 47
14	0 19	0 39	0 58	1 18	1 42	2 12	2 31	2 56	3 28	4 14
15	1 11	1 28	1 45	2 3	2 24	2 50	3 7	3 27	3 54	4 30
16	2 1	2 15	2 29	2 44	3 2	3 22	3 36	3 52	4 12	4 40
17	2 51	3 2	3 12	3 23	3 36	3 51	4 1	4 13	4 27	4 46
18	3 40	3 47	3 53	4 0	4 8	4 18	4 24	4 31	4 39	4 50
19	4 31	4 32	4 35	4 37	4 40	4 43	4 45	4 47	4 50	4 54
20	5 21	5 19	5 16	5 14	5 12	5 8	5 6	5 4	5 1	4 57
21	6 15	6 7	6 0	5 53	5 45	5 35	5 29	5 21	5 12	5 1
22	7 10	6 58	6 47	6 35	6 21	6 5	5 54	5 42	5 26	5 6
23	8 9	7 53	7 38	7 22	7 3	6 40	6 25	6 8	5 46	5 15
24	9 12	8 52	8 34	8 14	7 52	7 23	7 5	6 42	6 12	5 31
25	10 15	9 54	9 34	9 12	8 47	8 15	7 54	7 28	6 53	6 0
26	11 18	10 57	10 36	10 15	9 49	9 16	8 55	8 29	7 52	6 56
27	12 17	11 58	11 39	11 19	10 55	10 25	10 6	9 42	9 9	8 20
28	13 12	12 56	12 39	12 22	12 2	11 36	11 20	11 1	10 35	9 58
29	14 1	13 49	13 37	13 24	13 8	12 49	12 37	12 23	12 4	11 38
30	14 47	14 39	14 30	14 21	14 12	13 59	13 51	13 42	13 30	13 14
Mai 1	15 30	15 25	15 21	15 17	15 12	15 7	15 3	14 59	14 54	14 47
2	16 9	16 10	16 10	16 11	16 12	16 13	16 13	16 14	16 15	16 16
3	16 50	16 54	16 59	17 5	17 10	17 18	17 23	17 28	17 35	17 44

Monduntergang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
März 23	19 1	19 3	19 5	19 7	19 10	19 13	19 15	19 17	19 20	19 23
24	19 44	19 50	19 57	20 4	20 12	20 22	20 28	20 35	20 44	20 57
25	20 29	20 40	20 51	21 2	21 16	21 33	21 44	21 56	22 12	22 34
26	21 18	21 33	21 48	22 4	22 22	22 46	23 1	23 18	23 41	— —
27	22 12	22 30	22 48	23 8	23 30	23 58	— —	— —	— —	0 14
28	23 10	23 30	23 50	— —	— —	— —	0 16	0 39	1 10	1 54
29	— —	— —	— —	0 11	0 36	1 8	1 28	1 54	2 29	3 24
30	0 10	0 31	0 52	1 14	1 39	2 11	2 32	2 58	3 33	4 28
31	1 13	1 32	1 51	2 12	2 35	3 5	3 24	3 48	4 19	5 5
April 1	2 14	2 30	2 47	3 5	3 25	3 50	4 6	4 26	4 50	5 25
2	3 12	3 25	3 38	3 52	4 7	4 27	4 39	4 53	5 11	5 35
3	4 7	4 16	4 25	4 34	4 45	4 58	5 6	5 15	5 26	5 42
4	5 0	5 5	5 9	5 13	5 19	5 25	5 29	5 34	5 39	5 46
5	5 51	5 51	5 51	5 51	5 51	5 51	5 51	5 50	5 50	5 50
6	6 40	6 36	6 32	6 27	6 22	6 15	6 11	6 7	6 1	5 54
7	7 30	7 21	7 12	7 3	6 53	6 41	6 33	6 24	6 12	5 58
8	8 19	8 7	7 55	7 41	7 26	7 8	6 57	6 43	6 25	6 2
9	9 10	8 54	8 38	8 22	8 2	7 39	7 24	7 6	6 42	6 10
10	10 1	9 42	9 24	9 5	8 42	8 14	7 56	7 34	7 4	6 22
11	10 52	10 32	10 12	9 51	9 26	8 55	8 35	8 9	7 35	6 43
12	11 43	11 23	11 2	10 40	10 14	9 42	9 21	8 54	8 17	7 20
13	12 33	12 13	11 53	11 31	11 7	10 35	10 14	9 48	9 12	8 18
14	13 21	13 2	12 44	12 25	12 2	11 33	11 15	10 51	10 20	9 33
15	14 7	13 51	13 35	13 18	12 59	12 34	12 18	11 59	11 34	10 58
16	14 50	14 38	14 25	14 12	13 56	13 37	13 25	13 10	12 51	12 26
17	15 32	15 23	15 15	15 5	14 55	14 42	14 34	14 24	14 11	13 54
18	16 13	16 9	16 4	15 59	15 54	15 47	15 43	15 38	15 32	15 24
19	16 54	16 54	16 54	16 54	16 54	16 54	16 54	16 54	16 54	16 54
20	17 37	17 41	17 46	17 51	17 57	18 4	18 8	18 13	18 19	18 28
21	18 22	18 31	18 40	18 50	19 1	19 15	19 24	19 35	19 48	20 6
22	19 11	19 24	19 38	19 52	20 9	20 30	20 43	20 59	21 20	21 48
23	20 4	20 21	20 39	20 57	21 18	21 45	22 2	22 23	22 52	23 33
24	21 2	21 22	21 42	22 3	22 28	22 59	23 19	23 44	— —	— —
25	22 4	22 25	22 45	23 8	23 33	— —	— —	— —	0 19	1 12
26	23 7	23 27	23 46	— —	— —	0 6	0 27	0 54	1 30	2 27
27	— —	— —	— —	0 8	0 33	1 4	1 24	1 49	2 22	3 12
28	0 8	0 26	0 44	1 2	1 24	1 51	2 8	2 29	2 56	3 34
29	1 7	1 22	1 36	1 51	2 8	2 30	2 43	2 59	3 19	3 47
30	2 2	2 13	2 23	2 34	2 47	3 1	3 11	3 22	3 36	3 54
Mai 1	2 55	3 1	3 7	3 13	3 20	3 29	3 35	3 41	3 48	3 59
2	3 45	3 47	3 48	3 50	3 52	3 54	3 55	3 57	3 59	4 2
3	4 34	4 31	4 28	4 25	4 22	4 18	4 16	4 13	4 9	4 5

Mondaufgang 1947

Mittlere Ortszeit | Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Mai 3	16 50	16 54	16 59	17 5	17 10	17 18	17 23	17 28	17 35	17 44
4	17 30	17 39	17 48	17 58	18 8	18 22	18 31	18 41	18 54	19 12
5	18 12	18 24	18 37	18 51	19 7	19 26	19 39	19 54	20 14	20 40
6	18 56	19 12	19 27	19 45	20 5	20 30	20 46	21 6	21 32	22 9
7	19 42	20 0	20 19	20 39	21 2	21 32	21 50	22 14	22 46	23 34
8	20 30	20 50	21 10	21 32	21 58	22 30	22 51	23 17	23 53	— —
9	21 20	21 41	22 2	22 24	22 50	23 22	23 43	— —	— —	0 49
10	22 11	22 31	22 51	23 13	23 37	— —	— —	0 10	0 48	1 45
11	23 2	23 21	23 38	23 58	— —	0 9	0 29	0 54	1 28	2 19
12	23 52	— —	— —	— —	0 20	0 48	1 6	1 28	1 58	2 39
13	— —	0 8	0 24	0 40	0 59	1 22	1 37	1 55	2 18	2 50
14	0 42	0 54	1 6	1 19	1 34	1 52	2 4	2 17	2 34	2 57
15	1 30	1 39	1 47	1 56	2 6	2 19	2 26	2 35	2 46	3 1
16	2 19	2 23	2 28	2 32	2 37	2 43	2 47	2 52	2 58	3 5
17	3 8	3 8	3 8	3 8	3 8	3 8	3 8	3 8	3 8	3 8
18	4 0	3 55	3 51	3 46	3 40	3 34	3 30	3 25	3 18	3 11
19	4 54	4 45	4 36	4 26	4 15	4 2	3 54	3 44	3 32	3 16
20	5 52	5 39	5 26	5 11	4 55	4 35	4 22	4 7	3 48	3 23
21	6 54	6 37	6 20	6 2	5 41	5 14	4 57	4 37	4 11	3 34
22	8 0	7 40	7 21	6 59	6 34	6 4	5 44	5 19	4 46	3 57
23	9 6	8 45	8 24	8 2	7 36	7 3	6 42	6 16	5 38	4 42
24	10 9	9 49	9 30	9 8	8 43	8 12	7 52	7 27	6 52	5 59
25	11 7	10 50	10 33	10 14	9 52	9 25	9 8	8 47	8 18	7 37
26	11 59	11 46	11 32	11 17	11 0	10 39	10 26	10 10	9 48	9 20
27	12 46	12 37	12 27	12 17	12 5	11 51	11 42	11 31	11 17	10 58
28	13 29	13 24	13 19	13 14	13 7	13 0	12 55	12 49	12 42	12 32
29	14 10	14 9	14 8	14 7	14 7	14 6	14 5	14 4	14 3	14 1
30	14 49	14 53	14 56	15 0	15 4	15 10	15 13	15 17	15 22	15 28
31	15 28	15 36	15 44	15 52	16 2	16 13	16 20	16 29	16 40	16 54
Juni 1	16 8	16 21	16 32	16 45	16 59	17 17	17 28	17 41	17 59	18 22
2	16 52	17 7	17 22	17 38	17 57	18 20	18 35	18 53	19 16	19 50
3	17 37	17 55	18 13	18 32	18 54	19 22	19 40	20 3	20 32	21 16
4	18 25	18 45	19 4	19 26	19 50	20 21	20 42	21 8	21 42	22 36
5	19 14	19 35	19 55	20 18	20 44	21 16	21 38	22 5	22 41	23 40
6	20 5	20 26	20 46	21 8	21 33	22 5	22 26	22 52	23 28	— —
7	20 56	21 15	21 34	21 54	22 18	22 47	23 7	23 29	— —	0 21
8	21 46	22 3	22 20	22 37	22 58	23 22	23 38	23 58	0 0	0 45
9	22 35	22 49	23 2	23 17	23 33	23 54	— —	— —	0 24	0 59
10	23 23	23 34	23 43	23 54	— —	— —	0 6	0 21	0 41	1 6
11	— —	— —	— —	— —	0 5	0 20	0 30	0 41	0 54	1 12
12	0 11	0 17	0 23	0 29	0 36	0 45	0 51	0 57	1 6	1 15
13	0 58	1 0	1 2	1 4	1 6	1 9	1 11	1 13	1 16	1 18

Monduntergang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Mai 3	4 34	4 31	4 28	4 25	4 22	4 18	4 16	4 13	4 9	4 5
4	5 22	5 15	5 9	5 1	4 53	4 43	4 36	4 29	4 20	4 8
5	6 11	6 0	5 50	5 38	5 25	5 9	4 59	4 47	4 32	4 12
6	7 1	6 47	6 32	6 17	5 59	5 38	5 24	5 8	4 46	4 18
7	7 52	7 35	7 17	6 59	6 38	6 11	5 54	5 33	5 6	4 28
8	8 44	8 24	8 5	7 44	7 20	6 49	6 30	6 5	5 33	4 44
9	9 35	9 15	8 54	8 32	8 7	7 34	7 13	6 46	6 10	5 14
10	10 26	10 5	9 45	9 23	8 58	8 25	8 4	7 37	7 0	6 3
11	11 15	10 55	10 36	10 15	9 51	9 21	9 1	8 36	8 3	7 12
12	12 0	11 43	11 27	11 8	10 47	10 20	10 3	9 42	9 14	8 34
13	12 44	12 30	12 16	12 1	11 44	11 22	11 8	10 52	10 30	10 10
14	13 26	13 16	13 5	12 54	12 41	12 25	12 15	12 3	11 48	11 27
15	14 7	14 0	13 54	13 47	13 39	13 29	13 23	13 16	13 6	12 54
16	14 47	14 45	14 43	14 40	14 38	14 34	14 32	14 30	14 27	14 23
17	15 28	15 30	15 33	15 35	15 38	15 41	15 43	15 46	15 49	15 54
18	16 11	16 18	16 25	16 33	16 41	16 52	16 59	17 6	17 16	17 29
19	16 59	17 10	17 21	17 34	17 48	18 6	18 17	18 30	18 47	19 10
20	17 50	18 6	18 22	18 39	18 58	19 22	19 38	19 57	20 22	20 57
21	18 48	19 7	19 26	19 46	20 10	20 40	20 58	21 22	21 55	22 43
22	19 50	20 11	20 32	20 54	21 20	21 52	22 13	22 40	23 15	— —
23	20 55	21 16	21 36	21 58	22 24	22 56	23 17	23 43	— —	0 13
24	22 0	22 19	22 37	22 58	23 20	23 49	— —	— —	0 18	1 12
25	23 1	23 17	23 32	23 49	— —	— —	0 7	0 30	0 59	1 42
26	23 59	— —	— —	— —	0 8	0 31	0 46	1 4	1 26	1 57
27	— —	0 11	0 22	0 34	0 48	1 5	1 16	1 29	1 44	2 5
28	0 52	1 0	1 7	1 15	1 24	1 34	1 40	1 48	1 58	2 10
29	1 43	1 46	1 49	1 52	1 55	2 0	2 2	2 5	2 9	2 14
30	2 31	2 30	2 29	2 27	2 25	2 24	2 23	2 21	2 19	2 17
31	3 19	3 13	3 8	3 2	2 56	2 47	2 42	2 37	2 29	2 20
Juni 1	4 7	3 57	3 48	3 38	3 26	3 12	3 3	2 53	2 40	2 23
2	4 56	4 43	4 29	4 16	4 0	3 40	3 27	3 12	2 54	2 29
3	5 46	5 30	5 13	4 56	4 36	4 11	3 55	3 36	3 11	2 36
4	6 38	6 18	6 0	5 39	5 16	4 47	4 29	4 5	3 34	2 50
5	7 29	7 9	6 48	6 27	6 1	5 29	5 9	4 43	4 8	3 13
6	8 20	7 59	7 39	7 17	6 51	6 18	5 57	5 30	4 53	3 55
7	9 10	8 50	8 30	8 9	7 44	7 12	6 52	6 26	5 52	4 58
8	9 56	9 38	9 21	9 1	8 39	8 11	7 53	7 30	7 0	6 16
9	10 41	10 25	10 10	9 54	9 35	9 11	8 55	8 38	8 14	7 40
10	11 22	11 10	10 59	10 46	10 31	10 13	10 2	9 48	9 30	9 6
11	12 2	11 54	11 46	11 38	11 28	11 15	11 7	10 59	10 47	10 31
12	12 42	12 37	12 33	12 29	12 25	12 18	12 14	12 10	12 5	11 57
13	13 21	13 21	13 22	13 22	13 22	13 23	13 23	13 23	13 23	13 24

Mondaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Juni 13	0 58	1 0	1 2	1 4	1 6	1 9	1 11	1 13	1 16	1 18
14	1 47	1 45	1 42	1 40	1 37	1 33	1 31	1 28	1 25	1 21
15	2 39	2 32	2 25	2 18	2 9	1 59	1 53	1 46	1 37	1 25
16	3 35	3 23	3 11	3 0	2 45	2 29	2 18	2 6	1 50	1 30
17	4 34	4 18	4 3	3 47	3 28	3 5	2 50	2 32	2 10	1 39
18	5 39	5 20	5 1	4 41	4 18	3 49	3 31	3 8	2 38	1 55
19	6 46	6 25	6 4	5 42	5 17	4 44	4 23	3 57	3 22	2 28
20	7 52	7 32	7 11	6 49	6 24	5 51	5 30	5 4	4 28	3 31
21	8 55	8 36	8 18	7 58	7 35	7 6	6 48	6 24	5 52	5 5
22	9 51	9 36	9 21	9 5	8 46	8 23	8 7	7 49	7 24	6 51
23	10 42	10 31	10 20	10 8	9 54	9 38	9 27	9 14	8 58	8 36
24	11 28	11 21	11 14	11 7	10 59	10 49	10 42	10 35	10 26	10 14
25	12 10	12 7	12 5	12 3	12 0	11 57	11 55	11 53	11 50	11 46
26	12 50	12 52	12 54	12 56	12 59	13 3	13 5	13 7	13 10	13 14
27	13 29	13 36	13 42	13 49	13 57	14 7	14 13	14 20	14 29	14 41
28	14 9	14 20	14 30	14 41	14 54	15 10	15 20	15 32	15 48	16 8
29	14 51	15 5	15 19	15 34	15 51	16 13	16 27	16 44	17 5	17 35
30	15 35	15 52	16 8	16 27	16 48	17 15	17 32	17 53	18 22	19 1
Juli 1	16 21	16 41	17 0	17 20	17 44	18 15	18 34	18 59	19 33	20 23
2	17 10	17 31	17 51	18 13	18 39	19 11	19 32	19 59	20 36	21 33
3	18 1	18 21	18 42	19 4	19 29	20 2	20 23	20 49	21 26	22 21
4	18 52	19 11	19 30	19 51	20 15	20 46	21 5	21 30	22 2	22 50
5	19 42	20 0	20 17	20 36	20 57	21 24	21 41	22 1	22 28	23 6
6	20 32	20 46	21 1	21 16	21 34	21 56	22 10	22 26	22 47	23 16
7	21 20	21 31	21 42	21 53	22 7	22 23	22 34	22 46	23 2	23 22
8	22 7	22 14	22 21	22 29	22 38	22 48	22 55	23 3	23 13	23 25
9	22 53	22 57	23 0	23 3	23 7	23 12	23 15	23 18	23 23	23 28
10	23 40	23 39	23 38	23 37	23 36	23 35	23 35	23 34	23 33	23 31
11	— —	— —	— —	— —	— —	— —	23 55	23 50	23 42	23 34
12	0 28	0 24	0 18	0 13	0 7	0 0	— —	— —	23 55	23 38
13	1 21	1 11	1 2	0 52	0 41	0 26	0 18	0 8	— —	23 45
14	2 17	2 3	1 50	1 35	1 18	0 58	0 45	0 30	0 10	23 57
15	3 18	3 0	2 43	2 25	2 4	1 37	1 20	1 0	0 34	— —
16	4 23	4 2	3 43	3 21	2 57	2 26	2 6	1 41	1 8	0 19
17	5 30	5 9	4 48	4 25	4 0	3 26	3 5	2 39	2 2	1 6
18	6 35	6 15	5 56	5 34	5 10	4 38	4 18	3 53	3 19	2 26
19	7 36	7 19	7 2	6 44	6 23	5 56	5 39	5 19	4 50	4 11
20	8 31	8 18	8 5	7 51	7 35	7 15	7 2	6 47	6 28	6 0
21	9 20	9 12	9 3	8 54	8 44	8 31	8 23	8 13	8 1	7 45
22	10 5	10 1	9 57	9 53	9 48	9 43	9 39	9 35	9 30	9 23
23	10 47	10 48	10 48	10 49	10 50	10 51	10 51	10 52	10 54	10 55
24	11 28	11 33	11 38	11 43	11 50	11 58	12 2	12 7	12 16	12 25

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Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Juni 13	13 21	13 21	13 22	13 22	13 22	13 23	13 23	13 23	13 23	13 24
14	14 2	14 7	14 12	14 17	14 23	14 30	14 34	14 39	14 46	14 55
15	14 46	14 56	15 5	15 15	15 26	15 40	15 49	16 0	16 13	16 31
16	15 35	15 49	16 2	16 17	16 34	16 54	17 8	17 24	17 45	18 14
17	16 30	16 47	17 5	17 23	17 45	18 12	18 29	18 51	19 20	20 1
18	17 30	17 51	18 10	18 32	18 57	19 28	19 48	20 14	20 50	21 43
19	18 36	18 57	19 18	19 40	20 6	20 39	21 0	21 26	22 3	22 59
20	19 43	20 3	20 23	20 44	21 8	21 39	21 58	22 23	22 55	23 42
21	20 48	21 6	21 22	21 40	22 1	22 27	22 43	23 3	23 28	— —
22	21 50	22 3	22 16	22 30	22 45	23 5	23 17	23 32	23 50	0 3
23	22 46	22 55	23 4	23 13	23 24	23 36	23 44	23 54	— —	0 14
24	23 39	23 43	23 48	23 52	23 58	— —	— —	— —	0 5	0 21
25	— —	— —	— —	— —	— —	0 4	0 8	0 12	0 18	0 25
26	0 29	0 29	0 29	0 29	0 29	0 28	0 28	0 28	0 28	0 28
27	1 17	1 13	1 9	1 4	0 59	0 52	0 48	0 44	0 38	0 31
28	2 5	1 56	1 48	1 39	1 29	1 17	1 9	1 0	0 49	0 34
29	2 53	2 41	2 29	2 16	2 1	1 43	1 31	1 18	1 1	0 39
30	3 43	3 27	3 12	2 55	2 36	2 13	1 58	1 40	1 17	0 46
Juli 1	4 33	4 15	3 57	3 37	3 15	2 47	2 29	2 7	1 38	0 57
2	5 25	5 4	4 45	4 23	3 59	3 27	3 7	2 42	2 8	1 17
3	6 16	5 55	5 34	5 12	4 47	4 14	3 53	3 26	2 49	1 51
4	7 6	6 45	6 26	6 4	5 39	5 7	4 46	4 19	3 44	2 48
5	7 53	7 35	7 16	6 56	6 33	6 4	5 45	5 21	4 49	4 2
6	8 38	8 22	8 6	7 49	7 29	7 4	6 48	6 28	6 2	5 25
7	9 21	9 8	8 55	8 41	8 25	8 5	7 52	7 37	7 18	6 51
8	10 1	9 52	9 43	9 32	9 21	9 7	8 58	8 47	8 34	8 16
9	10 40	10 34	10 29	10 23	10 17	10 8	10 3	9 57	9 50	9 40
10	11 18	11 17	11 16	11 14	11 13	11 11	11 10	11 8	11 6	11 4
11	11 58	12 0	12 3	12 7	12 10	12 15	12 18	12 21	12 25	12 31
12	12 39	12 46	12 53	13 1	13 10	13 22	13 29	13 37	13 48	14 2
13	13 24	13 35	13 47	14 0	14 14	14 32	14 44	14 57	15 15	15 38
14	14 14	14 30	14 45	15 2	15 22	15 46	16 2	16 20	16 46	17 21
15	15 10	15 29	15 48	16 8	16 32	17 2	17 20	17 44	18 18	19 5
16	16 13	16 34	16 55	17 17	17 42	18 15	18 36	19 2	19 40	20 36
17	17 20	17 41	18 1	18 23	18 49	19 21	19 41	20 7	20 42	21 35
18	18 28	18 46	19 5	19 24	19 47	20 15	20 33	20 55	21 24	22 5
19	19 33	19 48	20 2	20 18	20 37	20 59	21 13	21 30	21 51	22 21
20	20 33	20 44	20 55	21 6	21 19	21 34	21 44	21 56	22 10	22 29
21	21 29	21 36	21 42	21 48	21 55	22 4	22 10	22 16	22 24	22 34
22	22 22	22 23	22 25	22 27	22 28	22 31	22 32	22 33	22 35	22 38
23	23 12	23 9	23 6	23 3	23 0	22 55	22 52	22 49	22 46	22 41
24	— —	23 54	23 47	23 39	23 30	23 20	23 13	23 6	22 56	22 44

Mondaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Juli 24	11 28	11 33	11 38	11 43	11 50	11 58	12 2	12 7	12 16	12 25
25	12 8	12 17	12 25	12 36	12 47	13 2	13 11	13 21	13 35	13 52
26	12 49	13 2	13 15	13 29	13 45	14 5	14 18	14 34	14 54	15 21
27	13 33	13 49	14 5	14 22	14 42	15 8	15 24	15 44	16 11	16 48
28	14 19	14 37	14 56	15 16	15 39	16 9	16 28	16 52	17 24	18 12
29	15 7	15 27	15 47	16 9	16 34	17 6	17 27	17 54	18 30	19 26
30	15 56	16 18	16 38	17 0	17 26	17 59	18 20	18 47	19 24	20 21
31	16 48	17 8	17 27	17 49	18 14	18 45	19 5	19 30	20 4	20 55
Aug. 1	17 38	17 57	18 15	18 34	18 56	19 24	19 42	20 4	20 33	21 14
2	18 29	18 44	18 59	19 16	19 35	19 58	20 13	20 31	20 54	21 25
3	19 17	19 30	19 41	19 54	20 9	20 27	20 39	20 52	21 9	21 31
4	20 5	20 13	20 21	20 30	20 40	20 53	21 1	21 10	21 21	21 36
5	20 51	20 56	21 0	21 4	21 10	21 16	21 20	21 25	21 31	21 38
6	21 37	21 38	21 38	21 38	21 39	21 39	21 40	21 40	21 40	21 41
7	22 25	22 21	22 17	22 13	22 9	22 3	21 59	21 55	21 50	21 44
8	23 15	23 6	22 58	22 49	22 40	22 28	22 20	22 12	22 2	21 47
9	— —	23 55	23 43	23 30	23 15	22 57	22 45	22 32	22 15	21 52
10	0 8	— —	— —	— —	23 55	23 31	23 15	22 57	22 34	22 1
11	1 4	0 48	0 32	0 15	— —	— —	23 56	23 32	23 2	22 17
12	2 6	1 46	1 27	1 7	0 43	0 14	— —	— —	23 44	22 49
13	3 10	2 49	2 28	2 6	1 40	1 8	0 47	0 20	— —	23 52
14	4 15	3 54	3 33	3 11	2 46	2 13	1 52	1 26	0 48	— —
15	5 17	4 58	4 40	4 20	3 57	3 27	3 9	2 46	2 14	1 27
16	6 15	6 0	5 45	5 29	5 10	4 46	4 31	4 14	3 50	3 16
17	7 8	6 57	6 46	6 34	6 22	6 5	5 54	5 42	5 26	5 5
18	7 55	7 49	7 43	7 36	7 29	7 21	7 15	7 8	7 0	6 48
19	8 39	8 38	8 37	8 35	8 34	8 33	8 32	8 30	8 28	8 26
20	9 22	9 25	9 28	9 32	9 37	9 42	9 45	9 49	9 53	10 0
21	10 3	10 11	10 19	10 27	10 37	10 49	10 56	11 5	11 17	11 31
22	10 45	10 57	11 8	11 21	11 36	11 54	12 6	12 20	12 38	13 2
23	11 29	11 44	11 59	12 16	12 34	12 59	13 15	13 33	13 57	14 31
24	12 14	12 32	12 50	13 10	13 32	14 1	14 19	14 43	15 13	15 58
25	13 2	13 22	13 42	14 4	14 28	15 0	15 21	15 47	16 22	17 18
26	13 52	14 13	14 33	14 56	15 21	15 55	16 16	16 43	17 21	18 20
27	14 42	15 3	15 23	15 45	16 10	16 43	17 4	17 30	18 5	19 0
28	15 34	15 53	16 11	16 32	16 55	17 24	17 43	18 7	18 37	19 22
29	16 24	16 41	16 57	17 15	17 35	18 0	18 16	18 35	19 0	19 35
30	17 13	17 27	17 40	17 54	18 10	18 30	18 43	18 58	19 17	19 42
31	18 2	18 11	18 21	18 31	18 43	18 57	19 6	19 16	19 30	19 46
Sept. 1	18 48	18 55	19 0	19 6	19 13	19 21	19 26	19 32	19 40	19 50
2	19 36	19 37	19 39	19 40	19 42	19 44	19 45	19 47	19 49	19 52
3	20 23	20 20	20 18	20 14	20 11	20 7	20 5	20 2	19 59	19 54

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Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Juli 24	— —	23 54	23 47	23 39	23 30	23 20	23 13	23 6	22 56	22 44
25	0 1	— —	— —	— —	— —	23 46	23 36	23 24	23 8	22 48
26	0 50	0 39	0 28	0 16	0 2	— —	— —	23 44	23 23	22 54
27	1 39	1 24	1 10	0 54	0 37	0 14	0 0	— —	23 42	23 4
28	2 30	2 12	1 55	1 36	1 14	0 47	0 30	0 10	— —	23 20
29	3 21	3 1	2 42	2 21	1 56	1 26	1 7	0 42	0 9	23 49
30	4 12	3 51	3 31	3 9	2 43	2 10	1 49	1 23	0 46	— —
31	5 2	4 42	4 21	3 59	3 34	3 1	2 40	2 13	1 37	0 40
Aug. 1	5 51	5 31	5 12	4 52	4 28	3 58	3 38	3 13	2 40	1 49
2	6 37	6 20	6 3	5 45	5 24	4 57	4 40	4 19	3 51	3 11
3	7 20	7 6	6 52	6 37	6 20	5 58	5 44	5 28	5 7	4 37
4	8 1	7 50	7 40	7 29	7 16	7 0	6 50	6 38	6 23	6 3
5	8 40	8 33	8 27	8 20	8 12	8 2	7 55	7 48	7 39	7 27
6	9 18	9 16	9 13	9 11	9 8	9 4	9 2	8 59	8 55	8 51
7	9 56	9 58	10 0	10 2	10 4	10 7	10 8	10 10	10 13	10 16
8	10 36	10 42	10 48	10 55	11 2	11 11	11 17	11 24	11 33	11 44
9	11 19	11 29	11 39	11 50	12 3	12 19	12 29	12 40	12 56	13 16
10	12 5	12 20	12 34	12 49	13 7	13 29	13 43	14 0	14 23	14 53
11	12 58	13 15	13 33	13 52	14 14	14 42	15 0	15 22	15 52	16 35
12	13 55	14 16	14 36	14 58	15 23	15 54	16 15	16 41	17 17	18 11
13	14 59	15 20	15 41	16 3	16 29	17 2	17 23	17 50	18 27	19 24
14	16 5	16 25	16 45	17 6	17 30	18 1	18 20	18 45	19 17	20 5
15	17 11	17 28	17 45	18 3	18 23	18 49	19 5	19 25	19 50	20 26
16	18 14	18 28	18 40	18 54	19 9	19 28	19 40	19 55	20 12	20 36
17	19 14	19 22	19 30	19 39	19 49	20 1	20 8	20 17	20 28	20 42
18	20 9	20 13	20 16	20 20	20 24	20 29	20 32	20 36	20 40	20 46
19	21 1	21 0	20 59	20 58	20 57	20 55	20 54	20 53	20 51	20 50
20	21 53	21 47	21 41	21 35	21 29	21 20	21 15	21 9	21 2	20 53
21	22 43	22 33	22 23	22 13	22 1	21 47	21 38	21 27	21 13	20 56
22	23 33	23 19	23 6	22 51	22 35	22 15	22 2	21 47	21 28	21 1
23	— —	— —	23 50	23 33	23 12	22 47	22 31	22 11	21 45	21 9
24	0 24	0 7	— —	— —	23 53	23 23	23 4	22 40	22 9	21 23
25	1 15	0 56	0 37	0 16	— —	— —	23 45	23 18	22 43	21 47
26	2 7	1 46	1 26	1 4	0 38	0 6	— —	— —	23 29	22 30
27	2 58	2 37	2 16	1 54	1 28	0 55	0 33	0 6	— —	23 34
28	3 47	3 27	3 7	2 46	2 21	1 50	1 29	1 3	0 28	— —
29	4 34	4 16	3 58	3 39	3 17	2 49	2 31	2 8	1 38	0 54
30	5 18	5 3	4 48	4 32	4 14	3 50	3 35	3 17	2 53	2 20
31	6 0	5 48	5 37	5 25	5 10	4 52	4 40	4 27	4 10	3 47
Sept. 1	6 40	6 32	6 24	6 16	6 7	5 55	5 48	5 39	5 28	5 13
2	7 18	7 15	7 11	7 7	7 3	6 58	6 54	6 50	6 45	6 38
3	7 57	7 57	7 58	7 59	7 59	8 0	8 0	8 1	8 2	8 3

Mondaufgang 1947

Mittlere Ortszeit | Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Sept. 3	20 23	20 20	20 18	20 14	20 11	20 7	20 5	20 2	19 59	19 54
4	21 11	21 5	20 58	20 50	20 42	20 32	20 25	20 18	20 9	19 57
5	22 3	21 52	21 40	21 29	21 16	20 59	20 48	20 36	20 21	20 1
6	22 58	22 42	22 28	22 12	21 53	21 30	21 16	20 59	20 37	20 7
7	23 52	23 38	23 19	23 0	22 37	22 9	21 51	21 29	21 0	20 20
8	— —	— —	— —	23 55	23 29	22 57	22 37	22 11	21 36	20 43
9	0 58	0 37	0 16	— —	— —	23 57	23 35	23 8	22 30	21 31
10	2 0	1 39	1 18	0 56	0 30	— —	— —	— —	23 45	22 52
11	3 2	2 42	2 23	2 1	1 37	1 6	0 46	0 20	— —	— —
12	4 1	3 43	3 27	3 8	2 48	2 21	2 4	1 43	1 16	0 35
13	4 54	4 41	4 29	4 14	3 59	3 39	3 26	3 11	2 51	2 24
14	5 44	5 35	5 28	5 18	5 8	4 56	4 47	4 38	4 25	4 9
15	6 29	6 26	6 23	6 18	6 14	6 10	6 6	6 1	5 56	5 50
16	7 12	7 14	7 15	7 16	7 18	7 20	7 21	7 23	7 25	7 27
17	7 55	8 1	8 7	8 13	8 20	8 29	8 35	8 42	8 50	9 1
18	8 38	8 48	8 58	9 9	9 22	9 38	9 48	9 59	10 14	10 34
19	9 22	9 36	9 50	10 5	10 22	10 44	10 58	11 15	11 37	12 8
20	10 7	10 25	10 42	11 0	11 21	11 49	12 6	12 28	12 57	13 39
21	10 55	11 15	11 34	11 55	12 19	12 51	13 11	13 37	14 11	15 5
22	11 44	12 5	12 26	12 49	13 14	13 48	14 10	14 37	15 15	16 15
23	12 35	12 56	13 17	13 40	14 6	14 39	15 1	15 28	16 5	17 4
24	13 27	13 47	14 6	14 27	14 52	15 23	15 43	16 8	16 41	17 31
25	14 17	14 35	14 53	15 12	15 33	16 0	16 17	16 38	17 6	17 45
26	15 7	15 22	15 36	15 52	16 10	16 32	16 46	17 3	17 24	17 53
27	15 56	16 7	16 18	16 30	16 44	17 0	17 10	17 22	17 37	17 58
28	16 44	16 51	16 58	17 6	17 14	17 24	17 31	17 39	17 49	18 1
29	17 31	17 34	17 37	17 40	17 44	17 47	17 50	17 54	17 58	18 3
30	18 18	18 17	18 16	18 15	18 13	18 11	18 10	18 9	18 8	18 5
Okt. 1	19 8	19 2	18 56	18 50	18 44	18 35	18 30	18 24	18 17	18 8
2	19 59	19 49	19 39	19 28	19 16	19 2	18 53	18 42	18 28	18 10
3	20 53	20 39	20 25	20 10	19 53	19 32	19 19	19 3	18 42	18 16
4	21 51	21 33	21 16	20 57	20 36	20 8	19 51	19 30	19 3	18 25
5	22 54	22 31	22 11	21 50	21 25	20 53	20 33	20 8	19 34	18 43
6	23 54	23 32	23 11	22 48	22 22	21 48	21 26	20 59	20 21	19 21
7	— —	— —	— —	23 51	23 26	22 53	22 32	22 5	21 28	20 31
8	0 55	0 34	0 14	— —	— —	— —	23 47	23 23	22 52	22 7
9	1 53	1 34	1 16	0 56	0 33	0 5	— —	— —	— —	23 52
10	2 46	2 31	2 16	2 1	1 42	1 20	1 5	0 48	0 25	— —
11	3 35	3 25	3 14	3 3	2 50	2 35	2 25	2 13	1 58	1 37
12	4 21	4 15	4 9	4 3	3 56	3 48	3 42	3 36	3 28	3 17
13	5 4	5 4	5 2	5 1	5 0	4 59	4 58	4 57	4 56	4 54
14	5 47	5 51	5 54	5 58	6 3	6 9	6 13	6 17	6 22	6 29

Monduntergang 1947

Mittlere Ortszeit | Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Sept. 3	7 57	7 57	7 58	7 59	7 59	8 0	8 0	8 1	8 2	8 3
4	8 36	8 41	8 46	8 51	8 58	9 5	9 10	9 15	9 22	9 31
5	9 18	9 27	9 36	9 46	9 57	10 11	10 20	10 30	10 44	11 1
6	10 2	10 15	10 29	10 43	10 59	11 20	11 33	11 48	12 9	12 37
7	10 51	11 8	11 25	11 44	12 5	12 31	12 48	13 8	13 37	14 16
8	11 46	12 6	12 25	12 46	13 11	13 42	14 2	14 27	15 2	15 54
9	12 46	13 7	13 28	13 50	14 16	14 50	15 11	15 38	16 16	17 15
10	13 49	14 10	14 30	14 52	15 18	15 50	16 11	16 37	17 13	18 6
11	14 53	15 12	15 30	15 50	16 12	16 41	16 59	17 21	17 50	18 31
12	15 56	16 12	16 26	16 42	17 0	17 23	17 37	17 54	18 16	18 44
13	16 56	17 7	17 18	17 29	17 42	17 58	18 8	18 19	18 33	18 51
14	17 53	17 59	18 5	18 12	18 19	18 27	18 33	18 39	18 46	18 56
15	18 48	18 49	18 50	18 51	18 52	18 54	18 55	18 56	18 57	18 59
16	19 40	19 36	19 33	19 29	19 25	19 19	19 16	19 13	19 8	19 2
17	20 31	20 23	20 15	20 7	19 57	19 45	19 37	19 29	19 19	19 5
18	21 23	21 11	20 59	20 46	20 31	20 13	20 1	19 48	19 31	19 9
19	22 15	21 59	21 43	21 27	21 7	20 43	20 28	20 10	19 47	19 15
20	23 7	22 48	22 30	22 10	21 47	21 19	21 1	20 38	20 8	19 25
21	23 59	23 39	23 19	22 57	22 32	22 0	21 39	21 13	20 38	19 44
22	— —	— —	— —	23 46	23 20	22 47	22 25	21 57	21 19	20 18
23	0 51	0 30	0 9	— —	— —	23 40	23 18	22 51	22 14	21 16
24	1 41	1 20	1 0	0 38	0 12	— —	— —	23 54	23 22	22 32
25	2 29	2 10	1 51	1 31	1 8	0 37	0 18	— —	— —	23 57
26	3 14	2 58	2 42	2 24	2 4	1 38	1 22	1 2	0 35	— —
27	3 57	3 44	3 31	3 17	3 1	2 41	2 28	2 12	1 52	1 25
28	4 37	4 28	4 19	4 9	3 58	3 44	3 35	3 24	3 10	2 52
29	5 17	5 11	5 6	5 1	4 54	4 46	4 41	4 36	4 29	4 19
30	5 56	5 54	5 54	5 53	5 52	5 50	5 49	5 48	5 47	5 46
Okt. 1	6 35	6 38	6 42	6 45	6 50	6 55	6 58	7 2	7 7	7 14
2	7 16	7 24	7 32	7 40	7 50	8 2	8 10	8 19	8 30	8 45
3	8 0	8 12	8 25	8 38	8 52	9 11	9 23	9 37	9 56	10 21
4	8 49	9 4	9 21	9 38	9 58	10 23	10 39	10 58	11 24	12 1
5	9 41	10 1	10 20	10 40	11 4	11 35	11 53	12 18	12 52	13 41
6	10 39	11 0	11 21	11 44	12 10	12 43	13 5	13 32	14 10	15 9
7	11 41	12 2	12 23	12 45	13 12	13 45	14 7	14 34	15 11	16 9
8	12 43	13 3	13 22	13 43	14 7	14 38	14 57	15 21	15 52	16 39
9	13 45	14 2	14 18	14 36	14 56	15 21	15 37	15 56	16 21	16 55
10	14 45	14 57	15 10	15 23	15 38	15 57	16 9	16 22	16 39	17 2
11	15 41	15 49	15 57	16 6	16 15	16 27	16 35	16 43	16 53	17 7
12	16 35	16 39	16 42	16 45	16 49	16 54	16 57	17 0	17 4	17 10
13	17 27	17 26	17 24	17 23	17 21	17 19	17 18	17 17	17 15	17 13
14	18 19	18 13	18 7	18 1	17 53	17 45	17 39	17 33	17 25	17 15

Mondaufgang 1947

Mittlere Ortszeit | Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Okt. 14	5 47	5 51	5 54	5 58	6 3	6 9	6 13	6 17	6 22	6 29
15	6 29	6 38	6 46	6 55	7 4	7 18	7 26	7 35	7 47	8 3
16	7 13	7 25	7 38	7 51	8 6	8 26	8 38	8 53	9 12	9 38
17	7 58	8 14	8 30	8 48	9 7	9 33	9 49	10 9	10 35	11 12
18	8 45	9 5	9 23	9 44	10 8	10 37	10 56	11 21	11 54	12 43
19	9 35	9 56	10 17	10 39	11 4	11 38	12 0	12 27	13 4	14 3
20	10 26	10 48	11 8	11 32	11 58	12 32	12 54	13 22	14 0	15 2
21	11 18	11 39	11 59	12 21	12 46	13 19	13 40	14 6	14 42	15 37
22	12 9	12 28	12 46	13 7	13 30	13 59	14 17	14 40	15 11	15 55
23	12 59	13 15	13 31	13 48	14 8	14 33	14 49	15 7	15 31	16 4
24	13 47	14 1	14 13	14 27	14 42	15 1	15 13	15 28	15 45	16 10
25	14 35	14 45	14 53	15 3	15 14	15 27	15 35	15 45	15 57	16 13
26	15 23	15 28	15 32	15 37	15 43	15 51	15 55	16 0	16 7	16 15
27	16 10	16 11	16 11	16 12	16 13	16 14	16 14	16 15	16 16	16 17
28	16 59	16 55	16 51	16 47	16 43	16 37	16 34	16 30	16 25	16 19
29	17 50	17 42	17 34	17 25	17 15	17 3	16 55	16 46	16 36	16 21
30	18 44	18 32	18 19	18 6	17 51	17 32	17 20	17 6	16 49	16 25
31	19 43	19 26	19 10	18 52	18 32	18 6	17 50	17 31	17 7	16 33
Nov. 1	20 44	20 24	20 5	19 44	19 19	18 49	18 30	18 6	17 34	16 47
2	21 47	21 26	21 4	20 42	20 15	19 42	19 20	18 53	18 16	17 17
3	22 49	22 28	22 7	21 45	21 18	20 45	20 23	19 56	19 18	18 17
4	23 48	23 29	23 10	22 50	22 25	21 55	21 36	21 11	20 38	19 48
5	— —	— —	— —	23 54	23 34	23 10	22 54	22 34	22 8	21 31
6	0 43	0 27	0 11	— —	— —	— —	— —	23 57	23 39	23 15
7	1 32	1 21	1 9	0 56	0 41	0 23	0 11	— —	— —	— —
8	2 18	2 11	2 3	1 55	1 46	1 35	1 27	1 19	1 9	0 55
9	3 1	2 58	2 55	2 52	2 49	2 45	2 42	2 39	2 35	2 30
10	3 42	3 44	3 46	3 48	3 50	3 53	3 55	3 57	4 0	4 3
11	4 25	4 30	4 36	4 43	4 51	5 1	5 8	5 15	5 24	5 36
12	5 6	5 17	5 28	5 39	5 52	6 9	6 20	6 32	6 47	7 9
13	5 50	6 5	6 19	6 35	6 53	7 16	7 31	7 48	8 11	8 43
14	6 37	6 55	7 12	7 32	7 54	8 22	8 40	9 3	9 33	10 17
15	7 26	7 46	8 6	8 28	8 53	9 25	9 46	10 12	10 48	11 44
16	8 16	8 38	8 59	9 22	9 48	10 21	10 43	11 12	11 51	12 54
17	9 9	9 30	9 51	10 13	10 39	11 13	11 35	12 2	12 39	13 38
18	10 0	10 20	10 39	11 1	11 26	11 56	12 15	12 40	13 13	14 2
19	10 50	11 8	11 25	11 44	12 5	12 32	12 49	13 9	13 36	14 14
20	11 40	11 54	12 8	12 23	12 41	13 2	13 16	13 32	13 52	14 20
21	12 27	12 38	12 48	13 0	13 13	13 29	13 39	13 50	14 4	14 24
22	13 13	13 20	13 27	13 34	13 42	13 52	13 59	14 6	14 15	14 26
23	14 0	14 3	14 5	14 8	14 11	14 15	14 17	14 20	14 23	14 28
24	14 48	14 46	14 44	14 42	14 40	14 38	14 37	14 35	14 33	14 30

Mittlere Ortszeit | Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Okt. 14	18 19	18 13	18 7	18 1	17 53	17 45	17 39	17 33	17 25	17 15
15	19 11	19 0	18 50	18 39	18 26	18 11	18 1	17 50	17 36	17 18
16	20 3	19 48	19 34	19 19	19 2	18 40	18 27	18 11	17 50	17 22
17	20 56	20 38	20 21	20 2	19 41	19 14	18 57	18 36	18 8	17 30
18	21 49	21 29	21 9	20 48	20 23	19 53	19 33	19 8	18 34	17 44
19	22 42	22 21	22 0	21 37	21 11	20 38	20 16	19 48	19 11	18 11
20	23 33	23 12	22 51	22 29	22 2	21 29	21 7	20 39	20 1	18 58
21	— —	— —	23 43	23 21	22 57	22 25	22 5	21 39	21 4	20 9
22	0 22	0 2	— —	— —	23 52	23 25	23 7	22 45	22 15	21 32
23	1 8	0 51	0 33	0 15	— —	— —	— —	23 54	23 31	23 0
24	1 52	1 37	1 23	1 7	0 49	0 26	0 11	— —	— —	— —
25	2 33	2 22	2 11	1 59	1 45	1 29	1 18	1 5	0 49	0 27
26	3 12	3 5	2 58	2 50	2 42	2 31	2 24	2 17	2 7	1 53
27	3 51	3 48	3 45	3 43	3 39	3 35	3 32	3 29	3 25	3 20
28	4 30	4 32	4 33	4 35	4 37	4 40	4 41	4 43	4 45	4 48
29	5 11	5 17	5 23	5 30	5 37	5 46	5 52	5 59	6 8	6 19
30	5 55	6 5	6 16	6 27	6 40	6 56	7 6	7 18	7 34	7 55
31	6 43	6 57	7 12	7 28	7 46	8 9	8 24	8 41	9 4	9 37
Nov. 1	7 35	7 53	8 12	8 31	8 54	9 23	9 41	10 4	10 35	11 21
2	8 33	8 54	9 14	9 36	10 2	10 35	10 56	11 23	12 0	12 58
3	9 34	9 56	10 17	10 40	11 7	11 40	12 2	12 30	13 9	14 9
4	10 37	10 58	11 18	11 40	12 5	12 36	12 56	13 22	13 56	14 47
5	11 39	11 57	12 15	12 34	12 55	13 22	13 39	14 0	14 27	15 5
6	12 39	12 53	13 7	13 22	13 38	13 59	14 12	14 28	14 47	15 14
7	13 35	13 45	13 54	14 4	14 16	14 30	14 39	14 50	15 2	15 19
8	14 28	14 33	14 38	14 44	14 50	14 57	15 2	15 7	15 13	15 22
9	15 20	15 20	15 21	15 21	15 22	15 22	15 22	15 23	15 23	15 24
10	16 10	16 6	16 2	15 58	15 53	15 47	15 43	15 38	15 33	15 26
11	17 1	16 52	16 44	16 35	16 24	16 12	16 4	15 55	15 43	15 29
12	17 52	17 39	17 27	17 13	16 58	16 39	16 27	16 13	15 56	15 32
13	18 45	18 28	18 12	17 55	17 35	17 11	16 55	16 36	16 12	15 38
14	19 38	19 19	19 0	18 40	18 16	17 47	17 29	17 5	16 34	15 48
15	20 32	20 11	19 50	19 28	19 2	18 29	18 8	17 41	17 5	16 9
16	21 24	21 3	20 42	20 19	19 52	19 19	18 57	18 28	17 50	16 47
17	22 15	21 54	21 34	21 11	20 46	20 13	19 52	19 25	18 48	17 49
18	23 2	22 43	22 25	22 5	21 41	21 12	20 53	20 29	19 57	19 8
19	23 46	23 30	23 15	22 57	22 38	22 13	21 57	21 37	21 11	20 35
20	— —	— —	— —	23 49	23 34	23 14	23 2	22 47	22 28	22 2
21	0 28	0 15	0 2	— —	— —	— —	— —	23 57	23 44	23 27
22	1 7	0 58	0 49	0 40	0 29	0 16	0 7	— —	— —	— —
23	1 45	1 40	1 36	1 31	1 25	1 18	1 13	1 8	1 0	0 52
24	2 24	2 23	2 23	2 22	2 21	2 21	2 21	2 20	2 19	2 18

Mondaufgang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Nov. 24	14 48	14 46	14 44	14 42	14 40	14 38	14 37	14 35	14 33	14 30
25	15 37	15 31	15 25	15 18	15 11	15 2	14 56	14 50	14 42	14 32
26	16 30	16 19	16 8	15 58	15 45	15 30	15 20	15 8	14 54	14 35
27	17 27	17 12	16 57	16 42	16 23	16 2	15 48	15 31	15 10	14 41
28	18 28	18 10	17 52	17 32	17 9	16 42	16 24	16 1	15 33	14 52
29	19 33	19 12	18 52	18 29	18 4	17 31	17 10	16 44	16 9	15 14
30	20 38	20 17	19 55	19 33	19 6	18 32	18 10	17 42	17 4	16 2
Dez. 1	21 40	21 21	21 1	20 39	20 14	19 42	19 22	18 57	18 21	17 26
2	22 38	22 21	22 4	21 46	21 24	20 58	20 41	20 20	19 51	19 10
3	23 30	23 17	23 4	22 50	22 34	22 14	22 1	21 45	21 25	20 57
4	— —	— —	— —	23 50	23 40	23 27	23 18	23 8	22 55	22 38
5	0 17	0 9	0 0	— —	— —	— —	— —	— —	— —	— —
6	1 1	0 57	0 52	0 48	0 43	0 37	0 33	0 28	0 22	0 14
7	1 42	1 42	1 43	1 43	1 44	1 45	1 45	1 46	1 46	1 47
8	2 23	2 27	2 32	2 38	2 44	2 52	2 57	3 2	3 9	3 18
9	3 4	3 13	3 22	3 32	3 43	3 58	4 7	4 17	4 31	4 48
10	3 46	3 59	4 12	4 27	4 43	5 4	5 17	5 32	5 52	6 21
11	4 31	4 48	5 4	5 22	5 43	6 8	6 25	6 47	7 14	7 54
12	5 19	5 38	5 57	6 18	6 42	7 13	7 33	7 58	8 32	9 23
13	6 9	6 30	6 50	7 13	7 39	8 13	8 35	9 2	9 40	10 41
14	7 0	7 22	7 43	8 6	8 32	9 6	9 28	9 56	10 34	11 36
15	7 53	8 13	8 33	8 55	9 20	9 52	10 12	10 38	11 13	12 6
16	8 43	9 2	9 20	9 40	10 2	10 30	10 48	11 10	11 40	12 21
17	9 33	9 49	10 4	10 20	10 39	11 3	11 18	11 35	11 59	12 30
18	10 20	10 33	10 45	10 58	11 12	11 30	11 42	11 55	12 12	12 34
19	11 6	11 15	11 23	11 32	11 42	11 55	12 3	12 12	12 23	12 37
20	11 52	11 57	12 1	12 5	12 11	12 17	12 21	12 26	12 31	12 38
21	12 38	12 38	12 38	12 38	12 39	12 39	12 39	12 39	12 40	12 40
22	13 25	13 21	13 17	13 12	13 8	13 2	12 58	12 54	12 49	12 42
23	14 14	14 6	13 58	13 49	13 39	13 27	13 19	13 10	12 59	12 44
24	15 11	14 56	14 43	14 29	14 14	13 56	13 44	13 29	13 12	12 49
25	16 7	15 50	15 34	15 16	14 56	14 30	14 14	13 55	13 31	12 56
26	17 11	16 51	16 32	16 10	15 46	15 15	14 56	14 31	13 59	13 12
27	18 17	17 55	17 34	17 11	16 45	16 11	15 49	15 22	14 45	13 45
28	19 23	19 2	18 41	18 19	17 53	17 19	16 58	16 32	15 54	14 54
29	20 25	20 7	19 49	19 29	19 5	18 36	18 18	17 54	17 23	16 36
30	21 22	21 7	20 52	20 36	20 18	19 55	19 40	19 23	19 0	18 27
31	22 13	22 2	21 52	21 41	21 28	21 12	21 2	20 50	20 36	20 15

Monduntergang 1947

Mittlere Ortszeit — Meridian von Greenwich

Tag	Geographische Breite									
	−10°	0°	+10°	+20°	+30°	+40°	+45°	+50°	+55°	+60°
1947	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Nov. 24	2 24	2 23	2 23	2 22	2 21	2 21	2 21	2 20	2 19	2 18
25	3 3	3 7	3 11	3 15	3 20	3 26	3 30	3 34	3 39	3 46
26	3 45	3 53	4 2	4 11	4 21	4 34	4 43	4 52	5 3	5 20
27	4 31	4 44	4 57	5 10	5 26	5 46	5 59	6 14	6 33	7 0
28	5 22	5 39	5 56	6 14	6 35	7 1	7 18	7 38	8 6	8 46
29	6 19	6 39	6 59	7 20	7 45	8 17	8 37	9 2	9 37	10 31
30	7 21	7 43	8 4	8 27	8 54	9 28	9 50	10 17	10 56	11 57
Dez. 1	8 26	8 48	9 8	9 31	9 57	10 30	10 51	11 17	11 53	12 48
2	9 31	9 50	10 9	10 29	10 52	11 21	11 39	12 1	12 30	13 13
3	10 33	10 49	11 4	11 20	11 38	12 1	12 16	12 33	12 54	13 24
4	11 31	11 42	11 53	12 5	12 18	12 34	12 44	12 56	13 10	13 30
5	12 25	12 32	12 38	12 45	12 53	13 2	13 8	13 15	13 23	13 34
6	13 17	13 19	13 21	13 22	13 25	13 27	13 29	13 31	13 33	13 36
7	14 7	14 4	14 1	13 58	13 55	13 51	13 49	13 46	13 42	13 38
8	14 56	14 49	14 42	14 35	14 26	14 15	14 9	14 2	13 52	13 40
9	15 46	15 35	15 24	15 12	14 58	14 41	14 31	14 19	14 4	13 43
10	16 38	16 22	16 7	15 51	15 33	15 11	14 57	14 40	14 17	13 48
11	17 30	17 12	16 54	16 34	16 12	15 44	15 27	15 5	14 37	13 56
12	18 23	18 3	17 43	17 21	16 56	16 24	16 4	15 38	15 4	14 12
13	19 16	18 55	18 34	18 11	17 45	17 11	16 49	16 21	15 43	14 42
14	20 7	19 47	19 26	19 3	18 37	18 4	17 42	17 14	16 36	15 35
15	20 56	20 37	20 17	19 56	19 32	19 1	18 41	18 16	17 42	16 50
16	21 42	21 25	21 8	20 49	20 28	20 1	19 44	19 23	18 55	18 14
17	22 24	22 10	21 56	21 41	21 24	21 2	20 48	20 32	20 11	19 41
18	23 3	22 53	22 43	22 32	22 19	22 3	21 53	21 41	21 26	21 6
19	23 41	23 35	23 28	23 22	23 14	23 4	22 57	22 50	22 41	22 29
20	— —	— —	— —	— —	— —	— —	— —	— —	23 57	23 52
21	0 18	0 16	0 14	0 11	0 8	0 5	0 3	0 0	— —	— —
22	0 56	0 58	1 0	1 2	1 5	1 7	1 9	1 11	1 13	1 17
23	1 36	1 42	1 48	1 55	2 2	2 12	2 18	2 25	2 34	2 46
24	2 18	2 29	2 40	2 51	3 4	3 20	3 31	3 43	3 59	4 20
25	3 6	3 21	3 36	3 52	4 10	4 33	4 48	5 6	5 29	6 2
26	4 0	4 19	4 37	4 57	5 20	5 49	6 7	6 30	7 1	7 48
27	5 0	5 21	5 42	6 5	6 30	7 3	7 24	7 51	8 29	9 28
28	6 6	6 28	6 49	7 11	7 38	8 12	8 34	9 1	9 39	10 39
29	7 14	7 34	7 53	8 15	8 39	9 10	9 29	9 54	10 26	11 14
30	8 19	8 37	8 53	9 11	9 31	9 56	10 12	10 32	10 56	11 31
31	9 21	9 34	9 47	10 0	10 15	10 34	10 45	10 59	11 16	11 39

Länge λ	Präzession in Länge $p\lambda$ — Breite β: 0°	+1°	+2°	+3°	+4°	+5°	+6°	+7°	+8°	+9°	Länge λ	Präz. in Br. $p\beta$ — Präzession $p\beta$	Diff.
°	″	″	″	″	″	″	″	″	″	″	°	″	
0	50.268	.259	.251	.243	.235	50.227	.218	.210	.202	.193	0	+0.046	81
10	.268	.260	.252	.244	.236	.228	.220	.212	.204	.196	10	+0.127	76
20	.268	.260	.253	.245	.238	.230	.223	.215	.208	.200	20	+0.203	71
30	.268	.261	.254	.247	.241	.234	.227	.220	.214	.207	30	+0.274	62
40	50.268	.262	.256	.250	.244	50.239	.233	.227	.221	.215	40	+0.336	52
50	.268	.263	.258	.254	.249	.244	.240	.235	.230	.225	50	+0.388	41
60	.268	.264	.261	.257	.254	.250	.247	.244	.240	.237	60	+0.429	27
70	.268	.265	.263	.261	.259	.257	.255	.253	.251	.249	70	+0.456	13
80	50.268	.267	.266	.266	.265	50.264	.264	.263	.262	.262	80	+0.469	1
90	.268	.268	.269	.270	.271	.272	.272	.273	.274	.275	90	+0.468	15
100	.268	.270	.272	.274	.276	.279	.281	.283	.285	.288	100	+0.453	28
110	.268	.271	.275	.278	.282	.285	.289	.292	.296	.300	110	+0.425	42
120	50.268	.272	.277	.282	.287	50.291	.296	.301	.306	.311	120	+0.383	54
130	.268	.273	.279	.285	.291	.297	.303	.309	.315	.321	130	+0.329	63
140	.268	.274	.281	.288	.295	.301	.308	.315	.322	.329	140	+0.266	71
150	.268	.275	.282	.290	.297	.305	.313	.320	.328	.335	150	+0.195	78
160	50.268	.275	.283	.291	.299	50.307	.315	.323	.332	.340	160	+0.117	81
170	.268	.276	.284	.292	.300	.309	.317	.325	.333	.342	170	+0.036	82
180	.268	.276	.284	.292	.300	.308	.317	.325	.333	.342	180	—0.046	81
190	.268	.275	.283	.291	.299	.307	.315	.323	.331	.339	190	—0.127	76
200	50.268	.275	.282	.290	.297	50.305	.312	.320	.327	.335	200	—0.203	71
210	.268	.274	.281	.288	.294	.301	.308	.315	.321	.328	210	—0.274	62
220	.268	.273	.279	.285	.291	.296	.302	.308	.314	.320	220	—0.336	52
230	.268	.272	.277	.281	.286	.291	.295	.300	.305	.310	230	—0.388	41
240	50.268	.271	.274	.278	.281	50.285	.288	.291	.295	.298	240	—0.429	27
250	.268	.270	.272	.274	.276	.278	.280	.282	.284	.286	250	—0.456	13
260	.268	.268	.269	.269	.270	.271	.271	.272	.273	.273	260	—0.469	1
270	.268	.267	.266	.265	.264	.263	.263	.262	.261	.260	270	—0.468	15
280	50.268	.265	.263	.261	.259	50.256	.254	.252	.250	.247	280	—0.453	28
290	.268	.264	.260	.257	.253	.250	.246	.243	.239	.235	290	—0.425	42
300	.268	.263	.258	.253	.248	.244	.239	.234	.229	.224	300	—0.383	54
310	.268	.262	.256	.250	.244	.238	.232	.226	.220	.214	310	—0.329	63
320	50.268	.261	.254	.247	.240	50.234	.227	.220	.213	.206	320	—0.266	71
330	.268	.260	.253	.245	.238	.230	.222	.215	.207	.200	330	—0.195	78
340	.268	.260	.252	.244	.236	.228	.220	.212	.203	.195	340	—0.117	81
350	.268	.259	.251	.243	.235	.226	.218	.210	.202	.193	350	—0.036	82
360	50.268	.259	.251	.243	.235	50.227	.218	.210	.202	.193	360	+0.046	

Länge λ	Präzession in Länge pλ — Breite β: 0°	−1°	−2°	−3°	−4°	−5°	−6°	−7°	−8°	−9°	Länge λ	Präz. in Br. pβ — Präzession pβ	
°	″	″	″	″	″	″	″	″	″	″	°	″	
0	50.268	.276	.284	.292	.300	50.308	.317	.325	.333	.342	0	+0.046	81
10	.268	.275	.283	.291	.299	.307	.315	.323	.331	.339	10	+0.127	76
20	.268	.275	.282	.290	.297	.305	.312	.320	.327	.335	20	+0.203	71
30	.268	.274	.281	.288	.294	.301	.308	.315	.321	.328	30	+0.274	62
40	50.268	.273	.279	.285	.291	50.296	.302	.308	.314	.320	40	+0.336	52
50	.268	.272	.277	.281	.286	.291	.295	.300	.305	.310	50	+0.388	41
60	.268	.271	.274	.278	.281	.285	.288	.291	.295	.298	60	+0.429	27
70	.268	.270	.272	.274	.276	.278	.280	.282	.284	.286	70	+0.456	13
80	50.268	.268	.269	.269	.270	50.271	.271	.272	.273	.273	80	+0.469	1
90	.268	.267	.266	.265	.264	.263	.263	.262	.261	.260	90	+0.468	15
100	.268	.265	.263	.261	.259	.256	.254	.252	.250	.247	100	+0.453	28
110	.268	.264	.260	.257	.253	.250	.246	.243	.239	.235	110	+0.425	42
120	50.268	.263	.258	.253	.248	50.244	.239	.234	.229	.224	120	+0.383	54
130	.268	.262	.256	.250	.244	.238	.232	.226	.220	.214	130	+0.329	63
140	.268	.261	.254	.247	.240	.234	.227	.220	.216	.206	140	+0.266	71
150	.268	.260	.253	.245	.238	.230	.222	.215	.207	.200	150	+0.195	78
160	50.268	.260	.252	.244	.236	50.228	.220	.212	.203	.195	160	+0.117	81
170	.268	.259	.251	.243	.235	.226	.218	.210	.202	.193	170	+0.036	82
180	.268	.259	.251	.243	.235	.227	.218	.210	.202	.193	180	−0.046	81
190	.268	.260	.252	.244	.236	.228	.220	.212	.204	.196	190	−0.127	76
200	50.268	.260	.253	.245	.238	50.230	.223	.215	.208	.200	200	−0.203	71
210	.268	.261	.254	.247	.241	.234	.227	.220	.214	.207	210	−0.274	62
220	.268	.262	.256	.250	.244	.239	.233	.227	.221	.215	220	−0.336	52
230	.268	.263	.258	.254	.249	.244	.240	.235	.230	.225	230	−0.388	41
240	50.268	.264	.261	.257	.254	50.250	.247	.244	.240	.237	240	−0.429	27
250	.268	.265	.263	.261	.259	.257	.255	.253	.251	.249	250	−0.456	13
260	.268	.267	.266	.266	.265	.264	.264	.263	.262	.262	260	−0.469	1
270	.268	.268	.269	.270	.271	.272	.272	.273	.274	.275	270	−0.468	15
280	50.268	.270	.272	.274	.276	50.279	.281	.283	.285	.288	280	−0.453	28
290	.268	.271	.275	.278	.282	.285	.289	.292	.296	.300	290	−0.425	42
300	.268	.272	.277	.282	.287	.291	.296	.301	.306	.311	300	−0.383	54
310	.268	.273	.279	.285	.291	.297	.303	.309	.315	.321	310	−0.329	63
320	50.268	.274	.281	.288	.295	50.301	.308	.315	.322	.329	320	−0.266	71
330	.268	.275	.282	.290	.297	.305	.313	.320	.328	.335	330	−0.195	78
340	.268	.275	.283	.291	.299	.307	.315	.323	.332	.340	340	−0.117	81
350	.268	.276	.284	.292	.300	.309	.317	.325	.333	.342	350	−0.036	82
360	50.268	.276	.284	.292	.300	50.308	.317	.325	.333	.342	360	+0.046	

Präzession in Rektaszension ($p\alpha$) und Deklination ($p\delta$)

α \ δ	+60°	+50°	+40°	+30°	+20°	+10°	0°	−10°	−20°	−30°	−40°	−50°	−60°	$p\delta$
h	s	s	s	s	s	s	s	s	s	s	s	s	s	″
0	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	+20.0
1	3.67	3.48	3.36	3.27	3.20	3.13	3.07	3.01	2.95	2.87	2.78	2.66	2.47	+19.4
2	4.23	3.87	3.63	3.46	3.32	3.19	3.07	2.95	2.83	2.69	2.51	2.28	1.92	+17.4
3	4.71	4.20	3.87	3.62	3.42	3.24	3.07	2.91	2.73	2.53	2.28	1.95	1.44	+14.2
4	5.08	4.45	4.04	3.74	3.49	3.28	3.07	2.87	2.65	2.41	2.10	1.69	1.07	+10.0
5	5.31	4.61	4.16	3.82	3.54	3.30	3.07	2.84	2.60	2.33	1.99	1.53	0.84	+ 5.2
6	5.39	4.67	4.19	3.84	3.56	3.31	3.07	2.84	2.59	2.30	1.95	1.48	0.76	0.0
7	5.31	4.61	4.16	3.82	3.54	3.30	3.07	2.84	2.60	2.33	1.99	1.53	0.84	− 5.2
8	5.08	4.45	4.04	3.74	3.49	3.28	3.07	2.87	2.65	2.41	2.10	1.69	1.07	−10.0
9	4.71	4.20	3.87	3.62	3.42	3.24	3.07	2.91	2.73	2.53	2.28	1.95	1.44	−14.2
10	4.23	3.87	3.63	3.46	3.32	3.19	3.07	2.95	2.83	2.69	2.51	2.28	1.92	−17.4
11	3.67	3.48	3.36	3.27	3.20	3.13	3.07	3.01	2.95	2.87	2.78	2.66	2.47	−19.4
12	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	−20.0
13	2.47	2.66	2.78	2.87	2.95	3.01	3.07	3.13	3.20	3.27	3.36	3.48	3.67	−19.4
14	1.92	2.28	2.51	2.69	2.83	2.95	3.07	3.19	3.32	3.46	3.63	3.87	4.23	−17.4
15	1.44	1.95	2.28	2.53	2.73	2.91	3.07	3.24	3.42	3.62	3.87	4.20	4.71	−14.2
16	1.07	1.69	2.10	2.41	2.65	2.87	3.07	3.28	3.49	3.74	4.04	4.45	5.08	−10.0
17	0.84	1.53	1.99	2.33	2.60	2.84	3.07	3.30	3.54	3.82	4.16	4.61	5.31	− 5.2
18	0.76	1.48	1.95	2.30	2.59	2.84	3.07	3.31	3.56	3.84	4.19	4.67	5.39	0.0
19	0.84	1.53	1.99	2.33	2.60	2.84	3.07	3.30	3.54	3.82	4.16	4.61	5.31	+ 5.2
20	1.07	1.69	2.10	2.41	2.65	2.87	3.07	3.28	3.49	3.74	4.04	4.45	5.08	+10.0
21	1.44	1.95	2.28	2.53	2.73	2.91	3.07	3.24	3.42	3.62	3.87	4.20	4.71	+14.2
22	1.92	2.28	2.51	2.69	2.83	2.95	3.07	3.19	3.32	3.46	3.63	3.87	4.23	+17.4
23	2.47	2.66	2.78	2.87	2.95	3.01	3.07	3.13	3.20	3.27	3.36	3.48	3.67	+19.4
24	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	+20.0

Präzessionswerte und Schiefe der Ekliptik

Zeit	m	n	n	ψ	$\log \pi$	Π	ϵ
	s	″	s	″		° ′	° ′ ″
1900.0	3.07234	20.0468	1.33646	50.2564	9.67309	173 57.06	23 27 8.26
1905.0	3.07243	20.0464	1.33643	50.2575	9.67305	173 59.80	23 27 5.92
1910.0	3.07252	20.0460	1.33640	50.2586	9.67302	174 2.53	23 27 3.57
1915.0	3.07262	20.0456	1.33637	50.2597	9.67299	174 5.27	23 27 1.23
1920.0	3.07271	20.0451	1.33634	50.2608	9.67296	174 8.01	23 26 58.89
1925.0	3.07280	20.0447	1.33632	50.2620	9.67293	174 10.75	23 26 56.54
1930.0	3.07289	20.0443	1.33629	50.2631	9.67290	174 13.49	23 26 54.20
1935.0	3.07299	20.0439	1.33626	50.2642	9.67287	174 16.23	23 26 51.86
1940.0	3.07308	20.0434	1.33623	50.2653	9.67284	174 18.97	23 26 49.52
1945.0	3.07317	20.0430	1.33620	50.2664	9.67281	174 21.71	23 26 47.17
1950.0	3.07327	20.0426	1.33617	50.2675	9.67278	174 24.45	23 26 44.83

′	″	°	′	″	°	″	°	″	°
0	0.0	0.000	3	0.0	0.050	0.000	0.00000	1.800	0.00050
	3.6	01		3.6	51	036	01	836	51
	7.2	02		7.2	52	072	02	872	52
	10.8	03		10.8	53	108	03	908	53
	14.4	04		14.4	54	144	04	944	54
0	18.0	0.005	3	18.0	0.055	0.180	0.00005	1.980	0.00055
	21.6	06		21.6	56	216	06	2.016	56
	25.2	07		25.2	57	252	07	052	57
	28.8	08		28.8	58	288	08	088	58
	32.4	09		32.4	59	324	09	124	59
0	36.0	0.010	3	36.0	0.060	0.360	0.00010	2.160	0.00060
	39.6	11		39.6	61	396	11	196	61
	43.2	12		43.2	62	432	12	232	62
	46.8	13		46.8	63	468	13	268	63
	50.4	14		50.4	64	504	14	304	64
	54.0	0.015		54.0	0.065	0.540	0.00015	2.340	0.00065
0	57.6	16	3	57.6	66	576	16	376	66
1	1.2	17	4	1.2	67	612	17	412	67
	4.8	18		4.8	68	648	18	448	68
	8.4	19		8.4	69	684	19	484	69
1	12.0	0.020	4	12.0	0.070	0.720	0.00020	2.520	0.00070
	15.6	21		15.6	71	756	21	556	71
	19.2	22		19.2	72	792	22	592	72
	22.8	23		22.8	73	828	23	628	73
	26.4	24		26.4	74	864	24	664	74
1	30.0	0.025	4	30.0	0.075	0.900	0.00025	2.700	0.00075
	33.6	26		33.6	76	936	26	736	76
	37.2	27		37.2	77	0.972	27	772	77
	40.8	28		40.8	78	1.008	28	808	78
	44.4	29		44.4	79	044	29	844	79
1	48.0	0.030	4	48.0	0.080	1.080	0.00030	2.880	0.00080
	51.6	31		51.6	81	116	31	916	81
	55.2	32		55.2	82	152	32	952	82
1	58.8	33	4	58.8	83	188	33	2.988	83
2	2.4	34	5	2.4	84	224	34	3.024	84
	6.0	0.035		6.0	0.085	1.260	0.00035	060	0.00085
	9.6	36		9.6	86	296	36	096	86
	13.2	37		13.2	87	332	37	132	87
	16.8	38		16.8	88	368	38	168	88
	20.4	39		20.4	89	404	39	204	89
2	24.0	0.040	5	24.0	0.090	1.440	0.00040	3.240	0.00090
	27.6	41		27.6	91	476	41	276	91
	31.2	42		31.2	92	512	42	312	92
	34.8	43		34.8	93	548	43	348	93
	38.4	44		38.4	94	584	44	384	94
2	42.0	0.045	5	42.0	0.095	1.620	0.00045	3.420	0.00095
	45.6	46		45.6	96	656	46	456	96
	49.2	47		49.2	97	692	47	492	97
	52.8	48		52.8	98	728	48	528	98
2	56.4	49	5	56.4	99	764	49	564	99
3	0.0	0.050	6	0.0	0.100	1.800	0.00050	3.600	0.00100

Verwandlung von mittlerer Zeit in Sternzeit

Red.	0m	1m	2m	3m
s	h m s	h m s	h m s	h m s
0	0 0 0	6 5 15	12 10 29	18 15 44
1	0 6 5	6 11 20	12 16 34	18 21 49
2	0 12 10	6 17 25	12 22 40	18 27 54
3	0 18 16	6 23 30	12 28 45	18 33 59
4	0 24 21	6 29 36	12 34 50	18 40 5
5	0 30 26	6 35 41	12 40 55	18 46 10
6	0 36 31	6 41 46	12 47 1	18 52 15
7	0 42 37	6 47 51	12 53 6	18 58 20
8	0 48 42	6 53 56	12 59 11	19 4 26
9	0 54 47	7 0 2	13 5 16	19 10 31
10	1 0 52	7 6 7	13 11 21	19 16 36
11	1 6 58	7 12 12	13 17 27	19 22 41
12	1 13 3	7 18 17	13 23 32	19 28 47
13	1 19 8	7 24 23	13 29 37	19 34 52
14	1 25 13	7 30 28	13 35 42	19 40 57
15	1 31 19	7 36 33	13 41 48	19 47 2
16	1 37 24	7 42 38	13 47 53	19 53 7
17	1 43 29	7 48 44	13 53 58	19 59 13
18	1 49 34	7 54 49	14 0 3	20 5 18
19	1 55 40	8 0 54	14 6 9	20 11 23
20	2 1 45	8 6 59	14 12 14	20 17 28
21	2 7 50	8 13 5	14 18 19	20 23 34
22	2 13 55	8 19 10	14 24 24	20 29 39
23	2 20 1	8 25 15	14 30 30	20 35 44
24	2 26 6	8 31 20	14 36 35	20 41 49
25	2 32 11	8 37 26	14 42 40	20 47 55
26	2 38 16	8 43 31	14 48 45	20 54 0
27	2 44 22	8 49 36	14 54 51	21 0 5
28	2 50 27	8 55 41	15 0 56	21 6 10
29	2 56 32	9 1 47	15 7 1	21 12 16
30	3 2 37	9 7 52	15 13 6	21 18 21
31	3 8 43	9 13 57	15 19 12	21 24 26
32	3 14 48	9 20 2	15 25 17	21 30 31
33	3 20 53	9 26 8	15 31 22	21 36 37
34	3 26 58	9 32 13	15 37 27	21 42 42
35	3 33 3	9 38 18	15 43 33	21 48 47
36	3 39 9	9 44 23	15 49 38	21 54 52
37	3 45 14	9 50 28	15 55 43	22 0 58
38	3 51 19	9 56 34	16 1 48	22 7 3
39	3 57 24	10 2 39	16 7 54	22 13 8
40	4 3 30	10 8 44	16 13 59	22 19 13
41	4 9 35	10 14 49	16 20 4	22 25 19
42	4 15 40	10 20 55	16 26 9	22 31 24
43	4 21 45	10 27 0	16 32 14	22 37 29
44	4 27 51	10 33 5	16 38 20	22 43 34
45	4 33 56	10 39 10	16 44 25	22 49 39
46	4 40 1	10 45 16	16 50 30	22 55 45
47	4 46 6	10 51 21	16 56 35	23 1 50
48	4 52 12	10 57 26	17 2 41	23 7 55
49	4 58 17	11 3 31	17 8 46	23 14 0
50	5 4 22	11 9 37	17 14 51	23 20 6
51	5 10 27	11 15 42	17 20 56	23 26 11
52	5 16 33	11 21 47	17 27 2	23 32 16
53	5 22 38	11 27 52	17 33 7	23 38 21
54	5 28 43	11 33 58	17 39 12	23 44 27
55	5 34 48	11 40 3	17 45 17	23 50 32
56	5 40 54	11 46 8	17 51 23	23 56 37
57	5 46 59	11 52 13	17 57 28	24 2 42
58	5 53 4	11 58 19	18 3 33	24 8 48
59	5 59 9	12 4 24	18 9 38	24 14 53

Red.		Red.	
s	m s	s	m s
0.00	0 0	0.50	3 3
0.01	0 4	0.51	3 6
0.02	0 7	0.52	3 10
0.03	0 11	0.53	3 14
0.04	0 15	0.54	3 17
0.05	0 18	0.55	3 21
0.06	0 22	0.56	3 25
0.07	0 26	0.57	3 28
0.08	0 29	0.58	3 32
0.09	0 33	0.59	3 35
0.10	0 37	0.60	3 39
0.11	0 40	0.61	3 43
0.12	0 44	0.62	3 46
0.13	0 47	0.63	3 50
0.14	0 51	0.64	3 54
0.15	0 55	0.65	3 57
0.16	0 58	0.66	4 1
0.17	1 2	0.67	4 5
0.18	1 6	0.68	4 8
0.19	1 9	0.69	4 12
0.20	1 13	0.70	4 16
0.21	1 17	0.71	4 19
0.22	1 20	0.72	4 23
0.23	1 24	0.73	4 27
0.24	1 28	0.74	4 30
0.25	1 31	0.75	4 34
0.26	1 35	0.76	4 38
0.27	1 39	0.77	4 41
0.28	1 42	0.78	4 45
0.29	1 46	0.79	4 49
0.30	1 50	0.80	4 52
0.31	1 53	0.81	4 56
0.32	1 57	0.82	4 59
0.33	2 1	0.83	5 3
0.34	2 4	0.84	5 7
0.35	2 8	0.85	5 10
0.36	2 11	0.86	5 14
0.37	2 15	0.87	5 18
0.38	2 19	0.88	5 21
0.39	2 22	0.89	5 25
0.40	2 26	0.90	5 29
0.41	2 30	0.91	5 32
0.42	2 33	0.92	5 36
0.43	2 37	0.93	5 40
0.44	2 41	0.94	5 43
0.45	2 44	0.95	5 47
0.46	2 48	0.96	5 51
0.47	2 52	0.97	5 54
0.48	2 55	0.98	5 58
0.49	2 59	0.99	6 2
0.50	3 3	1.00	6 5

Die Reduktion ist zur mittleren Zeit zu addieren.

Verwandlung von Sternzeit in mittlere Zeit

Red.	0^m			1^m			2^m			3^m		
s	h	m	s	h	m	s	h	m	s	h	m	s
0	0	0	0	6	6	15	12	12	29	18	18	44
1	0	6	6	6	12	21	12	18	35	18	24	50
2	0	12	12	6	18	27	12	24	42	18	30	56
3	0	18	19	6	24	33	12	30	48	18	37	2
4	0	24	25	6	30	40	12	36	54	18	43	9
5	0	30	31	6	36	46	12	43	0	18	49	15
6	0	36	37	6	42	52	12	49	7	18	55	21
7	0	42	44	6	48	58	12	55	13	19	1	27
8	0	48	50	6	55	4	13	1	19	19	7	34
9	0	54	56	7	1	11	13	7	25	19	13	40
10	1	1	2	7	7	17	13	13	31	19	19	46
11	1	7	9	7	13	23	13	19	38	19	25	52
12	1	13	15	7	19	29	13	25	44	19	31	59
13	1	19	21	7	25	36	13	31	50	19	38	5
14	1	25	27	7	31	42	13	37	56	19	44	11
15	1	31	34	7	37	48	13	44	3	19	50	17
16	1	37	40	7	43	54	13	50	9	19	56	23
17	1	43	46	7	50	1	13	56	15	20	2	30
18	1	49	52	7	56	7	14	2	21	20	8	36
19	1	55	59	8	2	13	14	8	28	20	14	42
20	2	2	5	8	8	19	14	14	34	20	20	48
21	2	8	11	8	14	26	14	20	40	20	26	55
22	2	14	17	8	20	32	14	26	46	20	33	1
23	2	20	24	8	26	38	14	32	53	20	39	7
24	2	26	30	8	32	44	14	38	59	20	45	13
25	2	32	36	8	38	51	14	45	5	20	51	20
26	2	38	42	8	44	57	14	51	11	20	57	26
27	2	44	49	8	51	3	14	57	18	21	3	32
28	2	50	55	8	57	9	15	3	24	21	9	38
29	2	57	1	9	3	16	15	9	30	21	15	45
30	3	3	7	9	9	22	15	15	36	21	21	51
31	3	9	14	9	15	28	15	21	43	21	27	57
32	3	15	20	9	21	34	15	27	49	21	34	3
33	3	21	26	9	27	41	15	33	55	21	40	10
34	3	27	32	9	33	47	15	40	1	21	46	16
35	3	33	38	9	39	53	15	46	8	21	52	22
36	3	39	45	9	45	59	15	52	14	21	58	28
37	3	45	51	9	52	5	15	58	20	22	4	35
38	3	51	57	9	58	12	16	4	26	22	10	41
39	3	58	3	10	4	18	16	10	33	22	16	47
40	4	4	10	10	10	24	16	16	39	22	22	53
41	4	10	16	10	16	30	16	22	45	22	29	0
42	4	16	22	10	22	37	16	28	51	22	35	6
43	4	22	28	10	28	43	16	34	57	22	41	12
44	4	28	35	10	34	49	16	41	4	22	47	18
45	4	34	41	10	40	55	16	47	10	22	53	24
46	4	40	47	10	47	2	16	53	16	22	59	31
47	4	46	53	10	53	8	16	59	22	23	5	37
48	4	53	0	10	59	14	17	5	29	23	11	43
49	4	59	6	11	5	20	17	11	35	23	17	49
50	5	5	12	11	11	27	17	17	41	23	23	56
51	5	11	18	11	17	33	17	23	47	23	30	2
52	5	17	25	11	23	39	17	29	54	23	36	8
53	5	23	31	11	29	45	17	36	0	23	42	14
54	5	29	37	11	35	52	17	42	6	23	48	21
55	5	35	43	11	41	58	17	48	12	23	54	27
56	5	41	50	11	48	4	17	54	19	24	0	33
57	5	47	56	11	54	10	18	0	25	24	6	39
58	5	54	2	12	0	17	18	6	31	24	12	46
59	6	0	8	12	6	23	18	12	37	24	18	52

Red.			Red.		
s	m	s	s	m	s
0.00	0	0	0.50	3	3
0.01	0	4	0.51	3	7
0.02	0	7	0.52	3	10
0.03	0	11	0.53	3	14
0.04	0	15	0.54	3	18
0.05	0	18	0.55	3	21
0.06	0	22	0.56	3	25
0.07	0	26	0.57	3	29
0.08	0	29	0.58	3	32
0.09	0	33	0.59	3	36
0.10	0	37	0.60	3	40
0.11	0	40	0.61	3	43
0.12	0	44	0.62	3	47
0.13	0	48	0.63	3	51
0.14	0	51	0.64	3	54
0.15	0	55	0.65	3	58
0.16	0	59	0.66	4	2
0.17	1	2	0.67	4	5
0.18	1	6	0.68	4	9
0.19	1	10	0.69	4	13
0.20	1	13	0.70	4	16
0.21	1	17	0.71	4	20
0.22	1	21	0.72	4	24
0.23	1	24	0.73	4	27
0.24	1	28	0.74	4	31
0.25	1	32	0.75	4	35
0.26	1	35	0.76	4	38
0.27	1	39	0.77	4	42
0.28	1	43	0.78	4	46
0.29	1	46	0.79	4	49
0.30	1	50	0.80	4	53
0.31	1	54	0.81	4	57
0.32	1	57	0.82	5	0
0.33	2	1	0.83	5	4
0.34	2	5	0.84	5	8
0.35	2	8	0.85	5	11
0.36	2	12	0.86	5	15
0.37	2	16	0.87	5	19
0.38	2	19	0.88	5	22
0.39	2	23	0.89	5	26
0.40	2	26	0.90	5	30
0.41	2	30	0.91	5	33
0.42	2	34	0.92	5	37
0.43	2	37	0.93	5	41
0.44	2	41	0.94	5	44
0.45	2	45	0.95	5	48
0.46	2	48	0.96	5	52
0.47	2	52	0.97	5	55
0.48	2	56	0.98	5	59
0.49	2	59	0.99	6	3
0.50	3	3	1.00	6	6

Die Reduktion ist von der Sternzeit zu subtrahieren

Verwandlung von mittlerer Zeit in Sternzeit

Red.	0m	1m	2m	3m	Red.
s	h m s	h m s	h m s	h m s	s
0	0 0 0.0	6 5 14.5	12 10 29.1	18 15 43.6	0
1	6 5.2	11 19,8	16 34.3	21 48.8	1
2	12 10.5	17 25.0	22 39.6	27 54.1	2
3	18 15.7	23 30.3	28 44.8	33 59.3	3
4	24 21.0	29 35.5	34 50.0	40 4.6	4
5	30 26.2	35 40.7	40 55.3	46 9.8	5
6	36 31.5	41 46.0	47 0.5	52 15.1	6
7	42 36.7	47 51.2	53 5.8	18 58 20.3	7
8	48 41.9	6 53 56.5	12 59 11.0	19 4 25.5	8
9	0 54 47.2	7 0 1.7	13 5 16.2	10 30.8	9
10	1 0 52.4	6 7.0	11 21.5	16 36.0	10
11	6 57.7	12 12.2	17 26.7	22 41.3	11
12	13 2.9	18 17.4	23 32.0	28 46.5	12
13	19 8.1	24 22.7	29 37.2	34 51.8	13
14	25 13.4	30 27.9	35 42.5	40 57.0	14
15	31 18.6	36 33.2	41 47.7	47 2.2	15
16	37 23.9	42 38.4	47 52.9	53 7.5	16
17	43 29.1	48 43.7	13 53 58.2	19 59 12.7	17
18	49 34.4	7 54 48.9	14 0 3.4	20 5 18.0	18
19	1 55 39.6	8 0 54.1	6 8.7	11 23.2	19
20	2 1 44.8	6 59.4	12 13.9	17 28.4	20
21	7 50.1	13 4.6	18 19.2	23 33.7	21
22	13 55.3	19 9.9	24 24.4	29 38.9	22
23	20 0.6	25 15.1	30 29.6	35 44.2	23
24	26 5.8	31 20.3	36 34.9	41 49.4	24
25	32 11.1	37 25.6	42 40.1	47 54.7	25
26	38 16.3	43 30.8	48 45.4	20 53 59.9	26
27	44 21.5	49 36,1	14 54 50.6	21 0 5.1	27
28	50 26.8	8 55 41.3	15 0 55.9	6 10.4	28
29	2 56 32.0	9 1 46.6	7 1.1	12 15.6	29
30	3 2 37.3	7 51.8	13 6.3	18 20.9	30
31	8 42.5	13 57.0	19 11.6	24 26.1	31
32	14 47.8	20 2.3	25 16.8	30 31.4	32
33	20 53.0	26 7.5	31 22.1	36 36.6	33
34	26 58.2	32 12.8	37 27.3	42 41.8	34
35	33 3.5	38 18.0	43 32.5	48 47.1	35
36	39 8.7	44 23.3	49 37.8	21 54 52.3	36
37	45 14.0	50 28.5	15 55 43.0	22 0 57.6	37
38	51 19.2	9 56 33.7	16 1 48.3	7 2.8	38
39	3 57 24.4	10 2 39.0	7 53.5	13 8.0	39
40	4 3 29.7	8 44.2	13 58.8	19 13.3	40
41	9 34.9	14 49.5	20 4.0	25 18.5	41
42	15 40.2	20 54.7	26 9.2	31 23.8	42
43	21 45.4	27 0.0	32 14.5	37 29.0	43
44	27 50.7	33 5.2	38 19.7	43 34.3	44
45	33 55.9	39 10.4	44 25.0	49 39.5	45
46	40 1.1	45 15.7	50 30.2	22 55 44.7	46
47	46 6.4	51 20.9	16 56 35.5	23 1 50.0	47
48	52 11.6	10 57 26.2	17 2 40.7	7 55.2	48
49	4 58 16.9	11 3 31.4	8 45.9	14 0.5	49
50	5 4 22.1	9 36.6	14 51.2	20 5.7	50
51	10 27.4	15 41.9	20 56.4	26 11.0	51
52	16 32.6	21 47.1	27 1.7	32 16.2	52
53	22 37.8	27 52.4	33 6.9	38 21.4	53
54	28 43.1	33 57.6	39 12.1	44 26.7	54
55	34 48.3	40 2.9	45 17.4	50 31.9	55
56	40 53.6	46 8.1	51 22.6	23 56 37.2	56
57	46 58.8	52 13.3	17 57 27.9	24 2 42.4	57
58	53 4.0	11 58 18.6	18 3 33.1	8 47.7	58
59	5 59 9.3	12 4 23.8	18 9 38.4	24 14 52.9	59

Red.		Red.	
s	m s	s	m s
0.00	0 0.0	0.50	3 2.6
01	3.7	51	6.3
02	7.3	52	9.9
03	11.0	53	13.6
04	14.6	54	17.2
0.05	18.3	0.55	20.9
06	21.9	56	24.5
07	25.6	57	28.2
08	29.2	58	31.8
09	32.9	59	35.5
0.10	36.5	0.60	39.1
11	40.2	61	42.8
12	43.8	62	46.5
13	47.5	63	50.1
14	51.1	64	53.8
0.15	54.8	0.65	3 57.4
16	0 58.4	66	4 1.1
17	1 2.1	67	4.7
18	5.7	68	8.4
19	9.4	69	12.0
0.20	13.0	0.70	15.7
21	16.7	71	19.3
22	20.4	72	23.0
23	24.0	73	26.6
24	27.7	74	30.3
0.25	31.3	0.75	33.9
26	35.0	76	37.6
27	38.6	77	41.2
28	42.3	78	44.9
29	45.9	79	48.5
0.30	49.6	0.80	52.2
31	53.2	81	55.8
32	1 56.9	82	4 59.5
33	2 0.5	83	5 3.2
34	4.2	84	6.8
0.35	7.8	0.85	10.5
36	11.5	86	14.1
37	15.1	87	17.8
38	18.8	88	21.4
39	22.4	89	25.1
0.40	26.1	0.90	28.7
41	29.7	91	32.4
42	33.4	92	36.0
43	37.1	93	39.7
44	40.7	94	43.3
0.45	44.4	0.95	47.0
46	48.0	96	50.6
47	51.7	97	54.3
48	55.3	98	5 57.9
0.49	2 59.0	0.99	6 1.6

Red.		Red.		Red.	
s	s	s	s	s	s
0.000		0.003		0.006	
	0.2		1.3		2.4
001		004		007	
	0.5		1.6		2.7
002		005		008	
	0.9		2.0		3.1
003		006		009	
	1.3		2.4		3.5
0.004		0.007		0.010	
					3.8

Die Reduktion ist zur mittleren Zeit zu addieren.

Red.	0m			1m			2m			3m			Red.
s	h	m	s	h	m	s	h	m	s	h	m	s	s
0	0	0	0.0	6	6	14.5	12	12	29.1	18	18	43.6	0
1		6	6.2		12	20.8		18	35.3		24	49.9	1
2		12	12.5		18	27.0		24	41.6		30	56.1	2
3		18	18.7		24	33.3		30	47.8		37	2.3	3
4		24	25.0		30	39.5		36	54.0		43	8.6	4
5		30	31.2		36	45.7		43	0.3		49	14.8	5
6		36	37.5		42	52.0		49	6.5	18	55	21.1	6
7		42	43.7		48	58.2	12	55	12.8	19	1	27.3	7
8		48	49.9	6	55	4.5	13	1	19.0		7	33.5	8
9	0	54	56.2	7	1	10.7		7	25.3		13	39.8	9
10	1	1	2.4		7	17.0		13	31.5		19	46.0	10
11		7	8.7		13	23.2		19	37.7		25	52.3	11
12		13	14.9		19	29.4		25	44.0		31	58.5	12
13		19	21.1		25	35.7		31	50.2		38	4.8	13
14		25	27.4		31	41.9		37	56.5		44	11.0	14
15		31	33.6		37	48.2		44	2.7		50	17.2	15
16		37	39.9		43	54.4		50	8.9	19	56	23.5	16
17		43	46.1		50	0.7	13	56	15.2	20	2	29.7	17
18		49	52.4	7	56	6.9	14	2	21.4		8	36.0	18
19	1	55	58.6	8	2	13.1		8	27.7		14	42.2	19
20	2	2	4.8		8	19.4		14	33.9		20	48.5	20
21		8	11.1		14	25.6		20	40.2		26	54.7	21
22		14	17.3		20	31.9		26	46.4		33	0.9	22
23		20	23.6		26	38.1		32	52.6		39	7.2	23
24		26	29.8		32	44.4		38	58.9		45	13.4	24
25		32	36.1		38	50.6		45	5.1		51	19.7	25
26		38	42.3		44	56.8		51	11.4	20	57	25.9	26
27		44	48.5		51	3.1	14	57	17.6	21	3	32.2	27
28		50	54.8	8	57	9.3	15	3	23.9		9	38.4	28
29	2	57	1.0	9	3	15.6		9	30.1		15	44.6	29
30	3	3	7.3		9	21.8		15	36.3		21	50.9	30
31		9	13.5		15	28.0		21	42.6		27	57.1	31
32		15	19.8		21	34.3		27	48.8		34	3.4	32
33		21	26.0		27	40.5		33	55.1		40	9.6	33
34		27	32.2		33	46.8		40	1.3		46	15.8	34
35		33	38.5		39	53.0		46	7.6		52	22.1	35
36		39	44.7		45	59.3		52	13.8	21	58	28.3	36
37		45	51.0		52	5.5	15	58	20.0	22	4	34.6	37
38		51	57.2	9	58	11.7	16	4	26.3		10	40.8	38
39	3	58	3.4	10	4	18.0		10	32.5		16	47.1	39
40	4	4	9.7		10	24.2		16	38.8		22	53.3	40
41		10	15.9		16	30.5		22	45.0		28	59.5	41
42		16	22.2		22	36.7		28	51.2		35	5.8	42
43		22	28.4		28	43.0		34	57.5		41	12.0	43
44		28	34.7		34	49.2		41	3.7		47	18.3	44
45		34	40.9		40	55.4		47	10.0		53	24.5	45
46		40	47.1		47	1.7		53	16.2	22	59	30.8	46
47		46	53.4		53	7.9	16	59	22.5	23	5	37.0	47
48		52	59.6	10	59	14.2	17	5	28.7		11	43.2	48
49	4	59	5.9	11	5	20.4		11	34.9		17	49.5	49
50	5	5	12.1		11	26.7		17	41.2		23	55.7	50
51		11	18.4		17	32.9		23	47.4		30	2.0	51
52		17	24.6		23	39.1		29	53.7		36	8.2	52
53		23	30.8		29	45.4		35	59.9		42	14.5	53
54		29	37.1		35	51.6		42	6.2		48	20.7	54
55		35	43.3		41	57.9		48	12.4	23	54	26.9	55
56		41	49.6		48	4.1	17	54	18.6	24	0	33.2	56
57		47	55.8	11	54	10.3	18	0	24.9		6	39.4	57
58	5	54	2.1	12	0	16.6		6	31.1		12	45.7	58
59	6	0	8.3	12	6	22.8	18	12	37.4	24	18	51.9	59

Red.			Red.		
s	m	s	s	m	s
0.00	0	0.0	0.50	3	3.1
01		3.7	51		6.8
02		7.3	52		10.4
03		11.0	53		14.1
04		14.6	54		17.8
0.05		18.3	0.55		21.4
06		22.0	56		25.1
07		25.6	57		28.8
08		29.3	58		32.4
09		33.0	59		36.1
0.10		36.6	0.60		39.7
11		40.3	61		43.4
12		43.9	62		47.1
13		47.6	63		50.7
14		51.3	64		54.4
0.15		54.9	0.65	3	58.1
16	0	58.6	66	4	1.7
17	1	2.3	67		5.4
18		5.9	68		9.0
19		9.6	69		12.7
0.20		13.2	0.70		16.4
21		16.9	71		20.0
22		20.6	72		23.7
23		24.2	73		27.4
24		27.9	74		31.0
0.25		31.6	0.75		34.7
26		35.2	76		38.3
27		38.9	77		42.0
28		42.5	78		45.7
29		46.2	79		49.3
0.30		49.9	0.80		53.0
31		53.5	81	4	56.7
32	1	57.2	82	5	0.3
33	2	0.9	83		4.0
34		4.5	84		7.6
0.35		8.2	0.85		11.3
36		11.8	86		15.0
37		15.5	87		18.6
38		19.2	88		22.3
39		22.8	89		26.0
0.40		26.5	0.90		29.6
41		30.2	91		33.3
42		33.8	92		36.9
43		37.5	93		40.6
44		41.1	94		44.3
0.45		44.8	0.95		47.9
46		48.5	96		51.6
47		52.1	97		55.3
48		55.8	98	5	58.9
0.49	2	59.5	0.99	6	2.6

Red.		Red.		Red.	
s		s		s	
0.000	s	0.003	s	0.006	s
	0.2		1.3		2.4
001		004		007	
	0.5		1.6		2.7
002		005		008	
	0.9		2.0		3.1
003		006		009	
	1.3		2.4		3.5
0.004		0.007		0.010	
					3.8

Die Reduktion ist von der Sternzeit zu subtrahieren.

Verwandlung von Stunden, Minuten und Sekunden

m	0^h d	1^h d	2^h d	3^h d	4^h d	5^h d	s	d
0	0.000000	0.041667	0.083333	0.125000	0.166667	0.208333	0	0.000000
1	000694	042361	084028	125694	167361	209028	1	000012
2	001389	043056	084722	126389	168056	209722	2	000023
3	002083	043750	085417	127083	168750	210417	3	000035
4	002778	044444	086111	127778	169444	211111	4	000046
5	0.003472	0.045139	0.086806	0.128472	0.170139	0.211806	5	0.000058
6	004167	045833	087500	129167	170833	212500	6	000069
7	004861	046528	088194	129861	171528	213194	7	000081
8	005556	047222	088889	130556	172222	213889	8	000093
9	006250	047917	089583	131250	172917	214583	9	000104
10	0.006944	0.048611	0.090278	0.131944	0.173611	0.215278	10	0.000116
11	007639	049306	090972	132639	174306	215972	11	000127
12	008333	050000	091667	133333	175000	216667	12	000139
13	009028	050694	092361	134028	175694	217361	13	000150
14	009722	051389	093056	134722	176389	218056	14	000162
15	0.010417	0.052083	0.093750	0.135417	0.177083	0.218750	15	0.000174
16	011111	052778	094444	136111	177778	219444	16	000185
17	011806	053472	095139	136806	178472	220139	17	000197
18	012500	054167	095833	137500	179167	220833	18	000208
19	013194	054861	096528	138194	179861	221528	19	000220
20	0.013889	0.055556	0.097222	0.138889	0.180556	0.222222	20	0.000231
21	014583	056250	097917	139583	181250	222917	21	000243
22	015278	056944	098611	140278	181944	223611	22	000255
23	015972	057639	099306	140972	182639	224306	23	000266
24	016667	058333	100000	141667	183333	225000	24	000278
25	0.017361	0.059028	0.100694	0.142361	0.184028	0.225694	25	0.000289
26	018056	059722	101389	143056	184722	226389	26	000301
27	018750	060417	102083	143750	185417	227083	27	000313
28	019444	061111	102778	144444	186111	227778	28	000324
29	020139	061806	103472	145139	186806	228472	29	000336
30	0.020833	0.062500	0.104167	0.145833	0.187500	0.229167	30	0.000347
31	021528	063194	104861	146528	188194	229861	31	000359
32	022222	063889	105556	147222	188889	230556	32	000370
33	022917	064583	106250	147917	189583	231250	33	000382
34	023611	065278	106944	148611	190278	231944	34	000394
35	0.024306	0.065972	0.107639	0.149306	0.190972	0.232639	35	0.000405
36	025000	066667	108333	150000	191667	233333	36	000417
37	025694	067361	109028	150694	192361	234028	37	000428
38	026389	068056	109722	151389	193056	234722	38	000440
39	027083	068750	110417	152083	193750	235417	39	000451
40	0.027778	0.069444	0.111111	0.152778	0.194444	0.236111	40	0.000463
41	028472	070139	111806	153472	195139	236806	41	000475
42	029167	070833	112500	154167	195833	237500	42	000486
43	029861	071528	113194	154861	196528	238194	43	000498
44	030556	072222	113889	155556	197222	238889	44	000509
45	0.031250	0.072917	0.114583	0.156250	0.197917	0.239583	45	0.000521
46	031944	073611	115278	156944	198611	240278	46	000532
47	032639	074306	115972	157639	199306	240972	47	000544
48	033333	075000	116667	158333	200000	241667	48	000556
49	034028	075694	117361	159028	200694	242361	49	000567
50	0.034722	0.076389	0.118056	0.159722	0.201389	0.243056	50	0.000579
51	035417	077083	118750	160417	202083	243750	51	000590
52	036111	077778	119444	161111	202778	244444	52	000602
53	036806	078472	120139	161806	203472	245139	53	000613
54	037500	079167	120833	162500	204167	245833	54	000625
55	0.038194	0.079861	0.121528	0.163194	0.204861	0.246528	55	0.000637
56	038889	080556	122222	163889	205556	247222	56	000648
57	039583	081250	122917	164583	206250	247917	57	000660
58	040278	081944	123611	165278	206944	248611	58	000671
59	0.040972	0.082639	0.124306	0.165972	0.207639	0.249306	59	0.000683

	6^h	7^h	8^h	9^h	10^h	11^h		
m	d	d	d	d	d	d	s	d
0	0.250000	0.291667	0.333333	0.375000	0.416667	0.458333	0	0.000000
1	250694	292361	334028	375694	417361	459028	1	000012
2	251389	293056	334722	376389	418056	459722	2	000023
3	252083	293750	335417	377083	418750	460417	3	000035
4	252778	294444	336111	377778	419444	461111	4	000046
5	0.253472	0.295139	0.336806	0.378472	0.420139	0.461806	5	0.000058
6	254167	295833	337500	379167	420833	462500	6	000069
7	254861	296528	338194	379861	421528	463194	7	000081
8	255556	297222	338889	380556	422222	463889	8	000093
9	256250	297917	339583	381250	422917	464583	9	000104
10	0.256944	0.298611	0.340278	0.381944	0.423611	0.465278	10	0.000116
11	257639	299306	340972	382639	424306	465972	11	000127
12	258333	300000	341667	383333	425000	466667	12	000139
13	259028	300694	342361	384028	425694	467361	13	000150
14	259722	301389	343056	384722	426389	468056	14	000162
15	0.260417	0.302083	0.343750	0.385417	0.427083	0.468750	15	0.000174
16	261111	302778	344444	386111	427778	469444	16	000185
17	261806	303472	345139	386806	428472	470139	17	000197
18	262500	304167	345833	387500	429167	470833	18	000208
19	263194	304861	346528	388194	429861	471528	19	000220
20	0.263889	0.305556	0.347222	0.388889	0.430556	0.472222	20	0.000231
21	264583	306250	347917	389583	431250	472917	21	000243
22	265278	306944	348611	390278	431944	473611	22	000255
23	265972	307639	349306	390972	432639	474306	23	000266
24	266667	308333	350000	391667	433333	475000	24	000278
25	0.267361	0.309028	0.350694	0.392361	0.434028	0.475694	25	0.000289
26	268056	309722	351389	393056	434722	476389	26	000301
27	268750	310417	352083	393750	435417	477083	27	000313
28	269444	311111	352778	394444	436111	477778	28	000324
29	270139	311806	353472	395139	436806	478472	29	000336
30	0.270833	0.312500	0.354167	0.395833	0.437500	0.479167	30	0.000347
31	271528	313194	354861	396528	438194	479861	31	000359
32	272222	313889	355556	397222	438889	480556	32	000370
33	272917	314583	356250	397917	439583	481250	33	000382
34	273611	315278	356944	398611	440278	481944	34	000394
35	0.274306	0.315972	0.357639	0.399306	0.440972	0.482639	35	0.000405
36	275000	316667	358333	400000	441667	483333	36	000417
37	275694	317361	359028	400694	442361	484028	37	000428
38	276389	318056	359722	401389	443056	484722	38	000440
39	277083	318750	360417	402083	443750	485417	39	000451
40	0.277778	0.319444	0.361111	0.402778	0.444444	0.486111	40	0.000463
41	278472	320139	361806	403472	445139	486806	41	000475
42	279167	320833	362500	404167	445833	487500	42	000486
43	279861	321528	363194	404861	446528	488194	43	000498
44	280556	322222	363889	405556	447222	488889	44	000509
45	0.281250	0.322917	0.364583	0.406250	0.447917	0.489583	45	0.000521
46	281944	323611	365278	406944	448611	490278	46	000532
47	282639	324306	365972	407639	449306	490972	47	000544
48	283333	325000	366667	408333	450000	491667	48	000556
49	284028	325694	367361	409028	450694	492361	49	000567
50	0.284722	0.326389	0.368056	0.409722	0.451389	0.493056	50	0.000579
51	285417	327083	368750	410417	452083	493750	51	000590
52	286111	327778	369444	411111	452778	494444	52	000602
53	286806	328472	370139	411806	453472	495139	53	000613
54	287500	329167	370833	412500	454167	495833	54	000625
55	0.288194	0.329861	0.371528	0.413194	0.454861	0.496528	55	0.000637
56	288889	330556	372222	413889	455556	497222	56	000648
57	289583	331250	372917	414583	456250	497917	57	000660
58	290278	331944	373611	415278	456944	498611	58	000671
59	0.290972	0.332639	0.374306	0.415972	0.457639	0.499306	59	0.000683

Julianische Periode

I. Anzahl der am 0. Januar, 12^h Weltzeit, seit Anfang der Periode verflossenen Tage

Jahr nach Chr.	0	100	200	300	400	500	600	700	800	900
	17	17	17	18	18	19	19	19	20	20
0	21057	57582	94107	30632	67157	03682	40207	76732	13257	49782
4	22518	59043	95568	32093	68618	05143	41668	78193	14718	51243
8	23979	60504	97029	33554	70079	06604	43129	79654	16179	52704
12	25440	61965	98490	35015	71540	08065	44590	81115	17640	54165
16	26901	63426	99951	36476	73001	09526	46051	82576	19101	55626
20	28362	64887	01412	37937	74462	10987	47512	84037	20562	57087
24	29823	66348	02873	39398	75923	12448	48973	85498	22023	58548
28	31284	67809	04334	40859	77384	13909	50434	86959	23484	60009
32	32745	69270	05795	42320	78845	15370	51895	88420	24945	61470
36	34206	70731	07256	43781	80306	16831	53356	89881	26406	62931
40	35667	72192	08717	45242	81767	18292	54817	91342	27867	64392
44	37128	73653	10178	46703	83228	19753	56278	92803	29328	65853
48	38589	75114	11639	48164	84689	21214	57739	94264	30789	67314
52	40050	76575	13100	49625	86150	22675	59200	95725	32250	68775
56	41511	78036	14561	51086	87611	24136	60661	97186	33711	70236
60	42972	79497	16022	52547	89072	25597	62122	98647	35172	71697
64	44433	80958	17483	54008	90533	27058	63583	00108	36633	73158
68	45894	82419	18944	55469	91994	28519	65044	01569	38094	74619
72	47355	83880	20405	56930	93455	29980	66505	03030	39555	76080
76	48816	85341	21866	58391	94916	31441	67966	04491	41016	77541
80	50277	86802	23327	59852	96377	32902	69427	05952	42477	79002
84	51738	88263	24788	61313	97838	34363	70888	07413	43938	80463
88	53199	89724	26249	62774	99299	35824	72349	08874	45399	81924
92	54660	91185	27710	64235	00760	37285	73810	10335	46860	83385
96	56121	92646	29171	65696	02221	38746	75271	11796	48321	84846
100	57582	94107	30632	67157	03682	40207	76732	13257	49782	86307
	17	17	18	18	19	19	19	20	20	20

Ia. Anzahl der am 0. eines jeden Monats, 12^h Weltzeit, seit Beginn der Schaltperiode verflossenen Tage

Jahr	Jan. 0	Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
0	0	31	60	91	121	152	182	213	244	274	305	335
1	366	397	425	456	486	517	547	578	609	639	670	700
2	731	762	790	821	851	882	912	943	974	1004	1035	1065
3	1096	1127	1155	1186	1216	1247	1277	1308	1339	1369	1400	1430

Julianische Periode

I. Anzahl der am 0. Januar, 12^h Weltzeit, seit Anfang der Periode verflossenen Tage

Jahr nach Chr.	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
	20	21	21	21	22	22	23	23	23	24
0	86307	22832	59357	95882	32407	68932	05447	41971[1])	78495[1])	15019[1])
4	87768	24293	60818	97343	33868	70393	06908	43432	79956	16480
8	89229	25754	62279	98804	35329	71854	08369	44893	81417	17941
12	90690	27215	63740	00265	36790	73315	09830	46354	82878	19402
16	92151	28676	65201	01726	38251	74776	11291	47815	84339	20863
20	93612	30137	66662	03187	39712	76237	12752	49276	85800	22324
24	95073	31598	68123	04648	41173	77698	14213	50737	87261	23785
28	96534	33059	69584	06109	42634	79159	15674	52198	88722	25246
32	97995	34520	71045	07570	44095	80620	17135	53659	90183	26707
36	99456	35981	72506	09031	45556	82081	18596	55120	91644	28168
40	00917	37442	73967	10492	47017	83542	20057	56581	93105	29629
44	02378	38903	75428	11953	48478	85003	21518	58042	94566	31090
48	03839	40364	76889	13414	49939	86464	22979	59503	96027	32551
52	05300	41825	78350	14875	51400	87925	24440	60964	97488	34012
56	06761	43286	79811	16336	52861	89386	25901	62425	98949	35473
60	08222	44747	81272	17797	54322	90847	27362	63886	00410	36934
64	09683	46208	82733	19258	55783	92308	28823	65347	01871	38395
68	11144	47669	84194	20719	57244	93769	30284	66808	03332	39856
72	12605	49130	85655	22180	58705	95230	31745	68269	04793	41317
76	14066	50591	87116	23641	60166	96691	33206	69730	06254	42778
80	15527	52052	88577	25102	61627	98152	34667	71191	07715	44239
84	16988	53513	90038	26563	63088	99603	36128	72652	09176	45700
88	18449	54974	91499	28024	64549	01064	37589	74113	10637	47161
92	19910	56435	92960	29485	66010	02525	39050	75574	12098	48622
96	21371	57896	94421	30946	67471	03986	40511	77035	13559	50083
100	22832	59357	95882	32407	68932	05447	41971[1])	78495[1])	15019[1])	51544
	21	21	21	22	22	23	23	23	24	24

[1]) Die Zahlen geben die am —1. Jan. seit Anfang der Periode verflossenen Tage.

Ia. Anzahl der am 0. eines jeden Monats, 12^h Weltzeit, seit Beginn der Schaltperiode verflossenen Tage

Jahr	Jan. 0	Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
0	0[2])	31[2])	60	91	121	152	182	213	244	274	305	335
1	366	397	425	456	486	517	547	578	609	639	670	700
2	731	762	790	821	851	882	912	943	974	1004	1035	1065
3	1096	1127	1155	1186	1216	1247	1277	1308	1339	1369	1400	1430

Von 1582 Okt. 15 bis 1583 Dez. 31 sind die Zahlen der Tafel Ia um 10 zu verkleinern.

[2]) In den Jahren 1700, 1800, 1900 um 1 zu vergrößern.

Julianische Periode

II. Anzahl der am 0. eines jeden Monats, 12^h Weltzeit, seit Beginn der Periode verflossenen Tage

Jahr n. Chr.	Januar 0	Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
1860	2400 410	441	470	501	531	562	592	623	654	684	715	745
1861	776	807	835	866	896	927	957	988	*019	*049	*080	*110
1862	2401 141	172	200	231	261	292	322	353	384	414	445	475
1863	506	537	565	596	626	657	687	718	749	779	810	840
1864	871	902	931	962	992	*023	*053	*084	*115	*145	*176	*206
1865	2402 237	268	296	327	357	388	418	449	480	510	541	571
1866	602	633	661	692	722	753	783	814	845	875	906	936
1867	967	998	*026	*057	*087	*118	*148	*179	*210	*240	*271	*301
1868	2403 332	363	392	423	453	484	514	545	576	606	637	667
1869	698	729	757	788	818	849	879	910	941	971	*002	*032
1870	2404 063	094	122	153	183	214	244	275	306	336	367	397
1871	428	459	487	518	548	579	609	640	671	701	732	762
1872	793	824	853	884	914	945	975	*006	*037	*067	*098	*128
1873	2405 159	190	218	249	279	310	340	371	402	432	463	493
1874	524	555	583	614	644	675	705	736	767	797	828	858
1875	889	920	948	979	*009	*040	*070	*101	*132	*162	*193	*223
1876	2406 254	285	314	345	375	406	436	467	498	528	559	589
1877	620	651	679	710	740	771	801	832	863	893	924	954
1878	985	*016	*044	*075	*105	*136	*166	*197	*228	*258	*289	*319
1879	2407 350	381	409	440	470	501	531	562	593	623	654	684
1880	715	746	775	806	836	867	897	928	959	989	*020	*050
1881	2408 081	112	140	171	201	232	262	293	324	354	385	415
1882	446	477	505	536	566	597	627	658	689	719	750	780
1883	811	842	870	901	931	962	992	*023	*054	*084	*115	*145
1884	2409 176	207	236	267	297	328	358	389	420	450	481	511
1885	542	573	601	632	662	693	723	754	785	815	846	876
1886	907	938	966	997	*027	*058	*088	*119	*150	*180	*211	*241
1887	2410 272	303	331	362	392	423	453	484	515	545	576	606
1888	637	668	697	728	758	789	819	850	881	911	942	972
1889	2411 003	034	062	093	123	154	184	215	246	276	307	337
1890	368	399	427	458	488	519	549	580	611	641	672	702
1891	733	764	792	823	853	884	914	945	976	*006	*037	*067
1892	2412 098	129	158	189	219	250	280	311	342	372	403	433
1893	464	495	523	554	584	615	645	676	707	737	768	798
1894	829	860	888	919	949	980	*010	*041	*072	*102	*133	*163
1895	2413 194	225	253	284	314	345	375	406	437	467	498	528
1896	559	590	619	650	680	711	741	772	803	833	864	894
1897	925	956	984	*015	*045	*076	*106	*137	*168	*198	*229	*259
1898	2414 290	321	349	380	410	441	471	502	533	563	594	624
1899	655	686	714	745	775	806	836	867	898	928	959	989

Julianische Periode

II. Anzahl der am 0. eines jeden Monats, 12^h Weltzeit, seit Beginn der Periode verflossenen Tage

Jahr n. Chr.	Januar 0	Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
1900	2415 020	051	079	110	140	171	201	232	263	293	324	354
1901	385	416	444	475	505	536	566	597	628	658	689	719
1902	750	781	809	840	870	901	931	962	993	*023	*054	*084
1903	2416 115	146	174	205	235	266	296	327	358	388	419	449
1904	480	511	540	571	601	632	662	693	724	754	785	815
1905	846	877	905	936	966	997	*027	*058	*089	*119	*150	*180
1906	2417 211	242	270	301	331	362	392	423	454	484	515	545
1907	576	607	635	666	696	727	757	788	819	849	880	910
1908	941	972	*001	*032	*062	*093	*123	*154	*185	*215	*246	*276
1909	2418 307	338	366	397	427	458	488	519	550	580	611	641
1910	672	703	731	762	792	823	853	884	915	945	976	*006
1911	2419 037	068	096	127	157	188	218	249	280	310	341	371
1912	402	433	462	493	523	554	584	615	646	676	707	737
1913	768	799	827	858	888	919	949	980	*011	*041	*072	*102
1914	2420 133	164	192	223	253	284	314	345	376	406	437	467
1915	498	529	557	588	618	649	679	710	741	771	802	832
1916	863	894	923	954	984	*015	*045	*076	*107	*137	*168	*198
1917	2421 229	260	288	319	349	380	410	441	472	502	533	563
1918	594	625	653	684	714	745	775	806	837	867	898	928
1919	959	990	*018	*049	*079	*110	*140	*171	*202	*232	*263	*293
1920	2422 324	355	384	415	445	476	506	537	568	598	629	659
1921	690	721	749	780	810	841	871	902	933	963	994	*024
1922	2423 055	086	114	145	175	206	236	267	298	328	359	389
1923	420	451	479	510	540	571	601	632	663	693	724	754
1924	785	816	845	876	906	937	967	998	*029	*059	*090	*120
1925	2424 151	182	210	241	271	302	332	363	394	424	455	485
1926	516	547	575	606	636	667	697	728	759	789	820	850
1927	881	912	940	971	*001	*032	*062	*093	*124	*154	*185	*215
1928	2425 246	277	306	337	367	398	428	459	490	520	551	581
1929	612	643	671	702	732	763	793	824	855	885	916	946
1930	977	*008	*036	*067	*097	*128	*158	*189	*220	*250	*281	*311
1931	2426 342	373	401	432	462	493	523	554	585	615	646	676
1932	707	738	767	798	828	859	889	920	951	981	*012	*042
1933	2427 073	104	132	163	193	224	254	285	316	346	377	407
1934	438	469	497	528	558	589	619	650	681	711	742	772
1935	803	834	862	893	923	954	984	*015	*046	*076	*107	*137
1936	2428 168	199	228	259	289	320	350	381	412	442	473	503
1937	534	565	593	624	654	685	715	746	777	807	838	868
1938	899	930	958	989	*019	*050	*080	*111	*142	*172	*203	*233
1939	2429 264	295	323	354	384	415	445	476	507	537	568	598

Julianische Periode

II. Anzahl der am 0. eines jeden Monats. 12^h Weltzeit, seit Beginn der Periode verflossenen Tage

Jahr n. Chr.	Januar	Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
1940	2429 629	660	689	720	750	781	811	842	873	903	934	964
1941	995	*026	*054	*085	*115	*146	*176	*207	*238	*268	*299	*329
1942	2430 360	391	419	450	480	511	541	572	603	633	664	694
1943	725	756	784	815	845	876	906	937	968	998	*029	*059
1944	2431 090	121	150	181	211	242	272	303	334	364	395	425
1945	456	487	515	546	576	607	637	668	699	729	760	790
1946	821	852	880	911	941	972	*002	*033	*064	*094	*125	*155
1947	2432 186	217	245	276	306	337	367	398	429	459	490	520
1948	551	582	611	642	672	703	733	764	795	825	856	886
1949	917	948	976	*007	*037	*068	*098	*129	*160	*190	*221	*251
1950	2433 282	313	341	372	402	433	463	494	525	555	586	616
1951	647	678	706	737	767	798	828	859	890	920	951	981
1952	2434 012	043	072	103	133	164	194	225	256	286	317	347
1953	378	409	437	468	498	529	559	590	621	651	682	712
1954	743	774	802	833	863	894	924	955	986	*016	*047	*077
1955	2435 108	139	167	198	228	259	289	320	351	381	412	442
1956	473	504	533	564	594	625	655	686	717	747	778	808
1957	839	870	898	929	959	990	*020	*051	*082	*112	*143	*173
1958	2436 204	235	263	294	324	355	385	416	447	477	508	538
1959	569	600	628	659	689	720	750	781	812	842	873	903
1960	934	965	994	*025	*055	*086	*116	*147	*178	*208	*239	*269
1961	2437 300	331	359	390	420	451	481	512	543	573	604	634
1962	665	696	724	755	785	816	846	877	908	938	969	999
1963	2438 030	061	089	120	150	181	211	242	273	303	334	364
1964	395	426	455	486	516	547	577	608	639	669	700	730
1965	761	792	820	851	881	912	942	973	*004	*034	*065	*095
1966	2439 126	157	185	216	246	277	307	338	369	399	430	460
1967	491	522	550	581	611	642	672	703	734	764	795	825
1968	856	887	916	947	977	*008	*038	*069	*100	*130	*161	*191
1969	2440 222	253	281	312	342	373	403	434	465	495	526	556
1970	587	618	646	677	707	738	768	799	830	860	891	921
1971	952	983	*011	*042	*072	*103	*133	*164	*195	*225	*256	*286
1972	2441 317	348	377	408	438	469	499	530	561	591	622	652
1973	683	714	742	773	803	834	864	895	926	956	987	*017
1974	2442 048	079	107	138	168	199	229	260	291	321	352	382
1975	413	444	472	503	533	564	594	625	656	686	717	747
1976	778	809	838	869	899	930	960	991	*022	*052	*083	*113
1977	2443 144	175	203	234	264	295	325	356	387	417	448	478
1978	509	540	568	599	629	660	690	721	752	782	813	843
1979	2443 874	905	933	964	994	*025	*055	*086	*117	*147	*178	*208

Hilfsgrößen

zur Berechnung der geozentrischen Koordinaten

$\rho \sin \varphi' = s \sin \varphi; \qquad \rho \cos \varphi' = c \cos \varphi$

φ	log s	Δ	log c	Δ	φ	log s	Δ	log c	Δ
± 0°	9.9970705	4	0.0000000	4	±40°	9.9976745	252	0.0006040	252
1	.9970709	14	.0000004	14	41	.9976997	254	.0006292	254
2	.9970723	22	.0000018	22	42	.9977251	255	.0006546	255
3	.9970745	31	.0000040	31	43	.9977506	255	.0006801	255
4	.9970776	40	.0000071	40	44	.9977761	255	.0007056	255
5	9.9970816	49	0.0000111	49	45	9.9978016	256	0.0007311	256
6	.9970865	57	.0000160	57	46	.9978272	255	.0007567	255
7	.9970922	66	.0000217	66	47	.9978527	255	.0007822	255
8	.9970988	74	.0000283	74	48	.9978782	254	.0008077	254
9	.9971062	83	.0000357	83	49	.9979036	252	.0008331	252
10	9.9971145	92	0.0000440	92	50	9.9979288	252	0.0008583	252
11	.9971237	99	.0000532	99	51	.9979540	249	.0008835	249
12	.9971336	108	.0000631	108	52	.9979789	247	.0009084	247
13	.9971444	116	.0000739	116	53	.9980036	245	.0009331	245
14	.9971560	123	.0000855	123	54	.9980281	242	.0009576	242
15	9.9971683	131	0.0000978	131	55	9.9980523	239	0.0009818	239
16	.9971814	139	.0001109	139	56	.9980762	235	.0010057	235
17	.9971953	146	.0001248	146	57	.9980997	232	.0010292	232
18	.9972099	154	.0001394	154	58	.9981229	228	.0010524	228
19	.9972253	160	.0001548	160	59	.9981457	224	.0010752	224
20	9.9972413	168	0.0001708	168	60	9.9981681	220	0.0010976	220
21	.9972581	174	.0001876	174	61	.9981901	215	.0011196	215
22	.9972755	180	.0002050	180	62	.9982116	209	.0011411	209
23	.9972935	187	.0002230	187	63	.9982325	205	.0011620	205
24	.9973122	192	.0002417	192	64	.9982530	199	.0011825	199
25	9.9973314	198	0.0002609	198	65	9.9982729	193	0.0012024	193
26	.9973512	204	.0002807	204	66	.9982922	188	.0012217	188
27	.9973716	209	.0003011	209	67	.9983110	181	.0012405	181
28	.9973925	214	.0003220	214	68	.9983291	175	.0012586	175
29	.9974139	219	.0003434	219	69	.9983466	168	.0012761	168
30	9.9974358	223	0.0003653	223	70	9.9983634	161	0.0012929	161
31	.9974581	227	.0003876	227	71	.9983795	154	.0013090	154
32	.9974808	232	.0004103	232	72	.9983949	147	.0013244	147
33	.9975040	235	.0004335	235	73	.9984096	140	.0013391	140
34	.9975275	238	.0004570	238	74	.9984236	132	.0013531	132
35	9.9975513	241	0.0004808	241	75	9.9984368	124	0.0013663	124
36	.9975754	245	.0005049	245	76	.9984492	117	.0013787	117
37	.9975999	246	.0005294	246	77	.9984609	108	.0013904	108
38	.9976245	249	.0005540	249	78	.9984717	100	.0014012	100
39	.9976494	251	.0005789	251	79	.9984817	92	.0014112	92
40	9.9976745		0.0006040		80	9.9984909		0.0014204	

Halber Tagbogen

δ \ φ	+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
°	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
−30	4 45.4	4 38.8	4 31.8	4 24.4	4 16.5	4 8.1	3 58.9	3 48.9	3 37.9	3 25.7	3 11.8
29	4 48.6	4 42.3	4 35.6	4 28.6	4 21.1	4 13.0	4 4.3	3 54.9	3 44.5	3 33.0	3 20.1
28	4 51.7	4 45.7	4 39.3	4 32.6	4 25.5	4 17.8	4 9.6	4 0.7	3 50.9	3 40.1	3 28.0
27	4 54.7	4 49.0	4 42.9	4 36.5	4 29.8	4 22.5	4 14.7	4 6.2	3 57.0	3 46.9	3 35.5
26	4 57.7	4 52.2	4 46.5	4 40.4	4 33.9	4 27.1	4 19.7	4 11.7	4 3.0	3 53.4	3 42.8
25	5 0.6	4 55.4	4 49.9	4 44.2	4 38.0	4 31.5	4 24.5	4 16.9	4 8.7	3 59.7	3 49.7
24	5 3.5	4 58.5	4 53.3	4 47.8	4 42.0	4 35.8	4 29.2	4 22.0	4 14.3	4 5.8	3 56.5
23	5 6.3	5 1.6	4 56.6	4 51.4	4 45.9	4 40.1	4 33.8	4 27.0	4 19.7	4 11.8	4 3.0
22	5 9.0	5 4.6	4 59.9	4 55.0	4 49.7	4 44.2	4 38.3	4 31.9	4 25.0	4 17.5	4 9.3
21	5 11.7	5 7.5	5 3.1	4 58.4	4 53.5	4 48.3	4 42.7	4 36.7	4 30.2	4 23.2	4 15.4
−20	5 14.4	5 10.4	5 6.2	5 1.8	4 57.2	4 52.3	4 47.0	4 41.3	4 35.3	4 28.7	4 21.4
19	5 17.0	5 13.3	5 9.3	5 5.2	5 0.8	4 56.2	4 51.2	4 45.9	4 40.2	4 34.0	4 27.3
18	5 19.6	5 16.1	5 12.4	5 8.5	5 4.4	5 0.0	4 55.4	4 50.4	4 45.1	4 39.3	4 33.0
17	5 22.2	5 18.9	5 15.4	5 11.7	5 7.9	5 3.8	4 59.5	4 54.9	4 49.9	4 44.5	4 38.6
16	5 24.7	5 21.6	5 18.4	5 14.9	5 11.4	5 7.5	5 3.5	4 59.2	4 54.6	4 49.5	4 44.1
15	5 27.2	5 24.3	5 21.3	5 18.1	5 14.8	5 11.2	5 7.5	5 3.5	4 59.2	4 54.5	4 49.5
14	5 29.7	5 27.0	5 24.2	5 21.3	5 18.2	5 14.9	5 11.4	5 7.7	5 3.7	4 59.5	4 54.8
13	5 32.1	5 29.7	5 27.1	5 24.4	5 21.5	5 18.5	5 15.3	5 11.9	5 8.2	5 4.3	5 0.0
12	5 34.6	5 32.3	5 29.9	5 27.4	5 24.8	5 22.1	5 19.1	5 16.0	5 12.6	5 9.0	5 5.1
11	5 37.0	5 34.9	5 32.7	5 30.5	5 28.1	5 25.6	5 22.9	5 20.1	5 17.0	5 13.7	5 10.2
−10	5 39.4	5 37.5	5 35.5	5 33.5	5 31.3	5 29.1	5 26.7	5 24.1	5 21.4	5 18.4	5 15.2
9	5 41.7	5 40.1	5 38.3	5 36.5	5 34.6	5 32.5	5 30.4	5 28.1	5 25.7	5 23.0	5 20.2
8	5 44.1	5 42.6	5 41.1	5 39.5	5 37.8	5 36.0	5 34.1	5 32.1	5 29.9	5 27.6	5 25.1
7	5 46.4	5 45.2	5 43.8	5 42.4	5 41.0	5 39.4	5 37.8	5 36.0	5 34.2	5 32.2	5 30.0
6	5 48.8	5 47.7	5 46.6	5 45.4	5 44.1	5 42.8	5 41.4	5 40.0	5 38.4	5 36.7	5 34.9
5	5 51.1	5 50.2	5 49.3	5 48.3	5 47.3	5 46.2	5 45.1	5 43.9	5 42.6	5 41.2	5 39.7
4	5 53.4	5 52.7	5 52.0	5 51.2	5 50.4	5 49.6	5 48.7	5 47.8	5 46.8	5 45.7	5 44.5
3	5 55.8	5 55.2	5 54.7	5 54.1	5 53.6	5 53.0	5 52.3	5 51.6	5 50.9	5 50.1	5 49.3
2	5 58.1	5 57.7	5 57.4	5 57.1	5 56.7	5 56.3	5 55.9	5 55.5	5 55.1	5 54.6	5 54.1
− 1	6 0.4	6 0.2	6 0.1	6 0.0	5 59.8	5 59.7	5 59.5	5 59.4	5 59.2	5 59.0	5 58.9
0	6 2.7	6 2.7	6 2.8	6 2.9	6 2.9	6 3.0	6 3.1	6 3.2	6 3.4	6 3.5	6 3.6
+ 1	6 5.0	6 5.2	6 5.5	6 5.8	6 6.1	6 6.4	6 6.7	6 7.1	6 7.5	6 7.9	6 8.4
2	6 7.3	6 7.7	6 8.2	6 8.7	6 9.2	6 9.8	6 10.3	6 11.0	6 11.6	6 12.4	6 13.2
3	6 9.6	6 10.3	6 10.9	6 11.6	6 12.3	6 13.1	6 14.0	6 14.8	6 15.8	6 16.8	6 18.0
4	6 11.9	6 12.8	6 13.6	6 14.5	6 15.5	6 16.5	6 17.6	6 18.7	6 20.0	6 21.3	6 22.8
5	6 14.3	6 15.3	6 16.4	6 17.5	6 18.6	6 19.9	6 21.2	6 22.6	6 24.2	6 25.8	6 27.6
6	6 16.6	6 17.8	6 19.1	6 20.4	6 21.8	6 23.3	6 24.9	6 26.6	6 28.4	6 30.4	6 32.5
7	6 19.0	6 20.4	6 21.8	6 23.4	6 25.0	6 26.7	6 28.6	6 30.5	6 32.6	6 34.9	6 37.4
8	6 21.3	6 22.9	6 24.6	6 26.4	6 28.2	6 30.2	6 32.3	6 34.5	6 36.9	6 39.5	6 42.3
9	6 23.7	6 25.5	6 27.4	6 29.4	6 31.4	6 33.7	6 36.0	6 38.5	6 41.2	6 44.1	6 47.3
10	6 26.1	6 28.1	6 30.2	6 32.4	6 34.7	6 37.2	6 39.8	6 42.5	6 45.6	6 48.8	6 52.3
+11	6 28.5	6 30.7	6 33.0	6 35.4	6 38.0	6 40.7	6 43.6	6 46.6	6 49.9	6 53.5	6 57.4
12	6 31.0	6 33.4	6 35.9	6 38.5	6 41.3	6 44.3	6 47.4	6 50.8	6 54.4	6 58.3	7 2.5
13	6 33.4	6 36.0	6 38.8	6 41.6	6 44.7	6 47.9	6 51.3	6 54.9	6 58.9	7 3.1	7 7.8
14	6 35.9	6 38.7	6 41.7	6 44.8	6 48.0	6 51.5	6 55.2	6 59.2	7 3.4	7 8.0	7 13.1
15	6 38.4	6 41.4	6 44.6	6 47.9	6 51.5	6 55.2	6 59.2	7 3.5	7 8.1	7 13.0	7 18.5
16	6 41.0	6 44.2	6 47.6	6 51.2	6 54.9	6 58.9	7 3.2	7 7.8	7 12.7	7 18.1	7 23.9
17	6 43.5	6 47.0	6 50.6	6 54.4	6 58.5	7 2.7	7 7.3	7 12.2	7 17.5	7 23.3	7 29.5
18	6 46.1	6 49.8	6 53.7	6 57.7	7 2.0	7 6.6	7 11.5	7 16.7	7 22.4	7 28.5	7 35.3
19	6 48.8	6 52.7	6 56.8	7 1.1	7 5.7	7 10.5	7 15.7	7 21.3	7 27.4	7 33.9	7 41.1
20	6 51.5	6 55.6	6 59.9	7 4.5	7 9.4	7 14.5	7 20.1	7 26.0	7 32.4	7 39.4	7 47.1
+21	6 54.2	6 58.6	7 3.1	7 8.0	7 13.1	7 18.6	7 24.5	7 30.8	7 37.6	7 45.1	7 53.3
22	6 56.9	7 1.6	7 6.4	7 11.5	7 17.0	7 22.8	7 29.0	7 35.7	7 42.9	7 50.9	7 59.6
23	6 59.8	7 4.6	7 9.7	7 15.1	7 20.9	7 27.0	7 33.6	7 40.7	7 48.4	7 56.8	8 6.1
24	7 2.6	7 7.7	7 13.1	7 18.8	7 24.9	7 31.3	7 38.3	7 45.8	7 54.0	8 2.9	8 12.9
25	7 5.6	7 10.9	7 16.6	7 22.6	7 29.0	7 35.8	7 43.1	7 51.1	7 59.8	8 9.3	8 19.9
26	7 8.5	7 14.2	7 20.1	7 26.4	7 33.2	7 40.4	7 48.1	7 56.5	8 5.7	8 15.8	8 27.1
27	7 11.6	7 17.5	7 23.8	7 30.4	7 37.5	7 45.0	7 53.2	8 2.1	8 11.8	8 22.6	8 34.7
28	7 14.7	7 20.9	7 27.5	7 34.4	7 41.9	7 49.9	7 58.5	8 7.9	8 18.2	8 29.7	8 42.6
29	7 17.9	7 24.4	7 31.3	7 38.6	7 46.4	7 54.8	8 3.9	8 13.9	8 24.8	8 37.1	8 51.0
+30	7 21.2	7 28.0	7 35.2	7 42.9	7 51.1	7 59.9	8 9.5	8 20.1	8 31.7	8 44.8	8 59.7

δ \ φ	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
°	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
−30	3 11.8	3 4.1	2 55.8	2 46.8	2 36.9	2 25.9	2 13.5	1 59.3	1 42.4	1 21.1	0 49.7
29	3 20.1	3 12.9	3 5.3	2 57.0	2 48.0	2 38.1	2 27.1	2 14.7	2 0.4	1 43.4	1 21.9
28	3 28.0	3 21.3	3 14.2	3 6.6	2 58.3	2 49.3	2 39.4	2 28.4	2 15.9	2 1.6	1 44.5
27	3 35.5	3 29.3	3 22.7	3 15.7	3 8.0	2 59.8	2 50.8	2 40.8	2 29.8	2 17.3	2 2.9
26	3 42.8	3 37.0	3 30.8	3 24.2	3 17.2	3 9.6	3 1.4	2 52.4	2 42.4	2 31.3	2 18.8
25	3 49.7	3 44.3	3 38.6	3 32.4	3 25.9	3 18.9	3 11.3	3 3.1	2 54.1	2 44.1	2 33.0
24	3 56.5	3 51.4	3 46.0	3 40.3	3 34.3	3 27.8	3 20.8	3 13.2	3 5.0	2 56.0	2 46.0
23	4 3.0	3 58.2	3 53.2	3 47.9	3 42.3	3 36.2	3 29.8	3 22.8	3 15.3	3 7.1	2 58.0
22	4 9.3	4 4.9	4 0.2	3 55.2	3 50.0	3 44.3	3 38.4	3 31.9	3 25.0	3 17.5	3 9.3
21	4 15.4	4 11.3	4 6.9	4 2.3	3 57.4	3 52.2	3 46.6	3 40.7	3 34.3	3 27.4	3 19.9
−20	4 21.4	4 17.5	4 13.5	4 9.1	4 4.6	3 59.8	3 54.6	3 49.1	3 43.2	3 36.9	3 30.0
19	4 27.3	4 23.7	4 19.9	4 15.8	4 11.6	4 7.1	4 2.3	3 57.2	3 51.8	3 45.9	3 39.6
18	4 33.0	4 29.6	4 26.1	4 22.3	4 18.4	4 14.2	4 9.8	4 5.1	4 0.1	3 54.7	3 48.9
17	4 38.6	4 35.4	4 32.1	4 28.7	4 25.0	4 21.1	4 17.0	4 12.7	4 8.1	4 3.1	3 57.8
16	4 44.1	4 41.2	4 38.1	4 34.9	4 31.5	4 27.9	4 24.1	4 20.1	4 15.9	4 11.3	4 6.4
15	4 49.5	4 46.8	4 43.9	4 41.0	4 37.8	4 34.5	4 31.0	4 27.4	4 23.4	4 19.3	4 14.8
14	4 54.8	4 52.3	4 49.7	4 46.9	4 44.1	4 41.0	4 37.8	4 34.4	4 30.8	4 27.0	4 22.9
13	5 0.0	4 57.7	4 55.3	4 52.8	4 50.2	4 47.4	4 44.5	4 41.4	4 38.1	4 34.6	4 30.9
12	5 5.1	5 3.0	5 0.9	4 58.6	4 56.2	4 53.7	4 51.0	4 48.2	4 45.2	4 42.0	4 38.7
11	5 10.2	5 8.3	5 6.4	5 4.3	5 2.1	4 59.8	4 57.4	4 54.9	4 52.2	4 49.3	4 46.3
−10	5 15.2	5 13.5	5 11.8	5 9.9	5 7.9	5 5.9	5 3.7	5 1.5	4 59.1	4 56.5	4 53.8
9	5 20.2	5 18.7	5 17.1	5 15.5	5 13.7	5 11.9	5 10.0	5 8.0	5 5.8	5 3.6	5 1.2
8	5 25.1	5 23.8	5 22.4	5 21.0	5 19.5	5 17.9	5 16.2	5 14.4	5 12.5	5 10.6	5 8.5
7	5 30.0	5 28.9	5 27.7	5 26.4	5 25.1	5 23.8	5 22.3	5 20.8	5 19.2	5 17.5	5 15.7
6	5 34.9	5 33.9	5 32.9	5 31.8	5 30.7	5 29.6	5 28.4	5 27.1	5 25.7	5 24.3	5 22.8
5	5 39.7	5 38.9	5 38.1	5 37.2	5 36.3	5 35.4	5 34.4	5 33.4	5 32.2	5 31.1	5 29.9
4	5 44.5	5 43.9	5 43.3	5 42.6	5 41.9	5 41.2	5 40.4	5 39.6	5 38.7	5 37.8	5 36.9
3	5 49.3	5 48.9	5 48.4	5 47.9	5 47.4	5 46.9	5 46.3	5 45.8	5 45.2	5 44.5	5 43.8
2	5 54.1	5 53.8	5 53.5	5 53.3	5 52.9	5 52.6	5 52.3	5 52.0	5 51.6	5 51.2	5 50.8
− 1	5 58.9	5 58.8	5 58.7	5 58.6	5 58.4	5 58.3	5 58.2	5 58.1	5 58.0	5 57.9	5 57.7
0	6 3.6	6 3.7	6 3.8	6 3.9	6 4.0	6 4.1	6 4.2	6 4.3	6 4.4	6 4.5	6 4.7
+ 1	6 8.4	6 8.6	6 8.9	6 9.2	6 9.5	6 9.8	6 10.1	6 10.4	6 10.8	6 11.2	6 11.6
2	6 13.2	6 13.6	6 14.0	6 14.5	6 15.0	6 15.5	6 16.0	6 16.6	6 17.2	6 17.8	6 18.5
3	6 18.0	6 18.6	6 19.2	6 19.8	6 20.5	6 21.2	6 22.0	6 22.8	6 23.6	6 24.6	6 25.5
4	6 22.8	6 23.5	6 24.4	6 25.2	6 26.1	6 27.0	6 28.0	6 29.0	6 30.1	6 31.3	6 32.5
5	6 27.6	6 28.6	6 29.6	6 30.6	6 31.7	6 32.8	6 34.0	6 35.3	6 36.6	6 38.1	6 39.6
6	6 32.5	6 33.6	6 34.8	6 36.0	6 37.3	6 38.7	6 40.1	6 41.6	6 43.2	6 44.9	6 46.7
7	6 37.4	6 38.7	6 40.0	6 41.5	6 43.0	6 44.6	6 46.2	6 48.0	6 49.8	6 51.8	6 53.9
8	6 42.3	6 43.8	6 45.3	6 47.0	6 48.7	6 50.5	6 52.4	6 54.4	6 56.5	6 58.8	7 1.2
9	6 47.3	6 48.9	6 50.7	6 52.6	6 54.5	6 56.5	6 58.7	7 0.9	7 3.3	7 5.9	7 8.6
10	6 52.3	6 54.1	6 56.1	6 58.2	7 0.3	7 2.6	7 5.0	7 7.5	7 10.2	7 13.1	7 16.2
+11	6 57.4	6 59.4	7 1.6	7 3.9	7 6.3	7 8.8	7 11.4	7 14.2	7 17.2	7 20.4	7 23.8
12	7 2.5	7 4.8	7 7.2	7 9.7	7 12.3	7 15.1	7 18.0	7 21.1	7 24.3	7 27.8	7 31.5
13	7 7.8	7 10.2	7 12.8	7 15.5	7 18.4	7 21.4	7 24.6	7 28.0	7 31.6	7 35.4	7 39.5
14	7 13.1	7 15.7	7 18.6	7 21.5	7 24.6	7 27.9	7 31.4	7 35.1	7 39.0	7 43.2	7 47.7
15	7 18.5	7 21.4	7 24.4	7 27.6	7 31.0	7 34.6	7 38.3	7 42.4	7 46.6	7 51.2	7 56.1
16	7 23.9	7 27.1	7 30.4	7 33.8	7 37.5	7 41.4	7 45.4	7 49.8	7 54.4	7 59.4	8 4.7
17	7 29.5	7 32.9	7 36.5	7 40.2	7 44.1	7 48.3	7 52.7	7 57.4	8 2.5	8 7.9	8 13.7
18	7 35.3	7 38.9	7 42.7	7 46.7	7 50.9	7 55.4	8 0.2	8 5.3	8 10.8	8 16.6	8 23.0
19	7 41.1	7 45.0	7 49.1	7 53.4	7 57.9	8 2.8	8 7.9	8 13.4	8 19.4	8 25.7	8 32.6
20	7 47.1	7 51.3	7 55.6	8 0.3	8 5.2	8 10.4	8 15.9	8 21.9	8 28.3	8 35.2	8 42.8
+21	7 53.3	7 57.7	8 2.4	8 7.3	8 12.6	8 18.2	8 24.2	8 30.7	8 37.6	8 45.2	8 53.5
22	7 59.6	8 4.3	8 9.4	8 14.7	8 20.3	8 26.4	8 32.8	8 39.8	8 47.4	8 55.7	9 4.8
23	8 6.1	8 11.2	8 16.6	8 22.3	8 28.3	8 34.9	8 41.9	8 49.5	8 57.7	9 6.8	9 16.9
24	8 12.9	8 18.3	8 24.0	8 30.2	8 36.7	8 43.8	8 51.4	8 59.6	9 8.7	9 18.8	9 30.0
25	8 19.9	8 25.7	8 31.8	8 38.4	8 45.5	8 53.1	9 1.4	9 10.5	9 20.5	9 31.7	9 44.4
26	8 27.1	8 33.4	8 40.0	8 47.0	8 54.7	9 3.0	9 12.1	9 22.1	9 33.2	9 45.9	10 0.6
27	8 34.7	8 41.4	8 48.5	8 56.1	9 4.4	9 13.5	9 23.5	9 34.6	9 47.3	10 1.9	10 19.5
28	8 42.6	8 49.8	8 57.5	9 5.8	9 14.8	9 24.8	9 35.9	9 48.5	10 3.1	10 20.5	10 42.9
29	8 51.0	8 58.7	9 7.0	9 16.1	9 26.0	9 37.1	9 49.6	10 4.1	10 21.5	10 43.7	11 18.1
+30	8 59.7	9 8.1	9 17.2	9 27.1	9 38.2	9 50.7	10 5.1	10 22.3	10 44.4	11 18.5	— —

Reduktionstafel

für den Auf- und Untergang der Sonne

Das obere Vorzeichen gilt für den Aufgang, das untere Vorzeichen für den Untergang

Tag		Geographische Breite										
		+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
1947		m	m	m	m	m	m	m	m	m	m	m
Jan.	1	∓62.8	∓58.1	∓53.2	∓48.1	∓42.7	∓36.7	∓30.5	∓23.8	∓16.5	∓ 8.7	0.0
	11	∓58.7	∓54.2	∓49.7	∓44.8	∓39.8	∓34.3	∓28.5	∓22.2	∓15.4	∓ 8.0	0.0
	21	∓52.5	∓48.5	∓44.4	∓39.9	∓35.4	∓30.5	∓25.3	∓19.8	∓13.7	∓ 7.1	0.0
	31	∓44.7	∓41.3	∓37.7	∓34.0	∓30.0	∓25.9	∓21.4	∓16.7	∓11.7	∓ 6.0	0.0
Febr.	10	∓35.9	∓33.2	∓30.3	∓27.3	∓24.2	∓20.7	∓17.1	∓13.3	∓ 9.3	∓ 4.8	0.0
	20	∓26.6	∓24.6	∓22.4	∓20.2	∓17.9	∓15.3	∓12.6	∓ 9.8	∓ 6.8	∓ 3.5	0.0
März	2	∓17.1	∓15.7	∓14.3	∓12.9	∓11.4	∓ 9.7	∓ 8.0	∓ 6.2	∓ 4.3	∓ 2.2	0.0
	12	∓ 7.4	∓ 6.8	∓ 6.2	∓ 5.6	∓ 4.9	∓ 4.1	∓ 3.4	∓ 2.7	∓ 1.9	∓ 0.9	0.0
	22	± 2.3	± 2.2	± 2.0	± 1.9	± 1.6	± 1.5	± 1.2	± 0.9	± 0.6	± 0.3	0.0
April	1	±12.0	±11.1	±10.1	± 9.2	± 8.1	± 7.0	± 5.8	± 4.5	± 3.1	± 1.6	0.0
	11	±21.7	±20.0	±18.3	±16.5	±14.5	±12.5	±10.3	± 8.1	± 5.5	± 2.9	0.0
	21	±31.2	±28.7	±26.3	±23.7	±20.8	±18.0	±14.9	±11.6	± 8.0	± 4.2	0.0
Mai	1	±40.3	±37.2	±34.0	±30.7	±27.1	±23.4	±19.5	±15.1	±10.5	± 5.5	0.0
	11	±48.9	±45.2	±41.3	±37.3	±33.2	±28.5	±23.7	±18.4	±12.8	± 6.7	0.0
	21	±56.5	±52.4	±47.9	±43.3	±38.5	±33.1	±27.5	±21.5	±14.9	± 7.8	0.0
	31	±62.8	±58.3	±53.4	±48.2	±42.8	±36.9	±30.7	±24.0	±16.8	± 8.8	0.0
Juni	10	±67.0	±62.1	±57.0	±51.5	±45.7	±39.6	±33.0	±25.9	±18.0	± 9.5	0.0
	20	±68.8	±63.8	±58.6	±52.9	±47.0	±40.7	±33.9	±26.6	±18.5	± 9.8	0.0
	30	±68.0	±63.0	±57.8	±52.2	±46.4	±40.1	±33.4	±26.2	±18.2	± 9.6	0.0
Juli	10	±64.6	±59.8	±54.9	±49.6	±44.1	±38.1	±31.7	±24.8	±17.2	± 9.1	0.0
	20	±59.1	±54.7	±50.1	±45.2	±49.2	±34.7	±28.8	±22.6	±15.6	± 8.2	0.0
	30	±51.9	±48.0	±44.1	±39.7	±35.2	±30.3	±25.2	±19.7	±13.7	± 7.1	0.0
Aug.	9	±43.7	±40.4	±37.0	±33.3	±29.6	±25.4	±21.1	±16.5	±11.5	± 5.9	0.0
	19	±34.8	±32.2	±29.4	±26.5	±23.5	±20.2	±16.8	±13.0	± 9.1	± 4.7	0.0
	29	±25.5	±23.6	±21.6	±19.5	±17.2	±14.8	±12.3	± 9.5	± 6.7	± 3.4	0.0
Sept.	8	±16.1	±14.8	±13.6	±12.3	±10.9	± 9.3	± 7.7	± 6.0	± 4.2	± 2.1	0.0
	18	± 6.6	± 6.0	± 5.5	± 5.0	± 4.5	± 3.8	± 3.1	± 2.5	± 1.8	± 0.9	0.0
	28	∓ 3.0	∓ 2.8	∓ 2.5	∓ 2.2	∓ 1.9	∓ 1.7	∓ 1.4	∓ 1.0	∓ 0.7	∓ 0.4	0.0
Okt.	8	∓12.7	∓11.6	∓10.5	∓ 9.5	∓ 8.3	∓ 7.2	∓ 5.9	∓ 4.6	∓ 3.1	∓ 1.6	0.0
	18	∓22.2	∓20.4	∓18.6	∓16.7	∓14.7	∓12.7	∓10.4	∓ 8.1	∓ 5.5	∓ 2.9	0.0
	28	∓31.5	∓29.0	∓26.5	∓23.8	∓21.0	∓18.1	∓14.9	∓11.6	∓ 8.0	∓ 4.2	0.0
Nov.	7	∓40.4	∓37.3	∓34.1	∓30.7	∓27.1	∓23.3	∓19.3	∓15.0	∓10.3	∓ 5.5	0.0
	17	∓48.7	∓45.0	∓41.1	∓37.1	∓32.8	∓28.2	∓23.4	∓18.2	∓12.6	∓ 6.7	0.0
	27	∓55.7	∓51.6	∓47.2	∓42.6	∓37.7	∓32.4	∓27.0	∓21.0	∓14.7	∓ 7.7	0.0
Dez.	7	∓61.0	∓56.4	∓51.6	∓46.6	∓41.3	∓35.6	∓29.6	∓23.2	∓16.1	∓ 8.5	0.0
	17	∓63.9	∓59.1	∓54.1	∓48.9	∓43.3	∓37.4	∓31.1	∓24.3	∓16.9	∓ 8.9	0.0
	27	∓63.9	∓59.1	∓54.1	∓48.9	∓43.3	∓37.4	∓31.1	∓24.3	∓16.9	∓ 8.9	0.0
	37	∓61.2	∓56.6	∓51.8	∓46.8	∓41.5	∓35.8	∓29.8	∓23.2	∓16.1	∓ 8.4	0.0

Reduktionstafel

für den Auf- und Untergang der Sonne

Das obere Vorzeichen gilt für den Aufgang, das untere Vorzeichen für den Untergang

Tag		Geographische Breite										
		+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
1947		m	m	m	m	m	m	m	m	m	m	m
Jan.	1	0.0	± 4.7	± 9.6	±14.8	±20.5	±26.4	±32.8	±39.7	±47.1	±55.2	±64.0
	11	0.0	± 4.4	± 8.9	±13.8	±18.9	±24.5	±30.3	±36.5	±43.2	±50.6	±58.5
	21	0.0	± 3.8	± 7.9	±12.1	±16.7	±21.4	±26.5	±31.9	±37.7	±43.9	±50.6
	31	0.0	± 3.2	± 6.6	±10.2	±13.9	±17.9	±22.1	±26.5	±31.3	±36.4	±41.8
Febr.	10	0.0	± 2.5	± 5.2	± 8.1	±11.0	±14.2	±17.4	±20.8	±24.6	±28.5	±32.7
	20	0.0	± 1.8	± 3.8	± 5.9	± 8.0	±10.3	±12.7	±15.1	±17.9	±20.7	±23.6
März	2	0.0	± 1.2	± 2.4	± 3.8	± 5.1	± 6.5	± 8.0	± 9.5	±11.3	±13.0	±14.7
	12	0.0	± 0.5	± 1.0	± 1.6	± 2.2	± 2.8	± 3.4	± 4.0	± 4.7	± 5.5	± 6.2
	22	0.0	∓ 0.2	∓ 0.4	∓ 0.5	∓ 0.7	∓ 1.0	∓ 1.3	∓ 1.5	∓ 1.7	∓ 2.0	∓ 2.4
April	1	0.0	∓ 0.9	∓ 1.8	∓ 2.6	∓ 3.7	∓ 4.7	∓ 5.9	∓ 7.1	∓ 8.2	∓ 9.6	∓10.9
	11	0.0	∓ 1.5	∓ 3.2	∓ 4.8	∓ 6.7	∓ 8.5	∓10.5	∓12.7	∓14.8	∓17.2	∓19.7
	21	0.0	∓ 2.2	∓ 4.6	∓ 7.0	∓ 9.7	∓12.4	∓15.3	∓18.3	∓21.6	∓25.0	∓28.8
Mai	1	0.0	∓ 3.0	∓ 6.1	∓ 9.2	∓12.7	∓16.3	∓20.1	∓24.1	∓28.4	∓33.0	∓38.0
	11	0.0	∓ 3.6	∓ 7.4	∓11.3	∓15.6	∓20.1	∓24.8	∓30.0	∓35.4	∓41.2	∓47.5
	21	0.0	∓ 4.2	∓ 8.7	∓13.4	∓18.3	∓23.7	∓29.4	∓35.6	∓42.1	∓49.2	∓57.0
	31	0.0	∓ 4.7	∓ 9.8	∓15.2	∓20.7	∓26.9	∓33.4	∓40.5	∓48.1	∓56.3	∓65.5
Juni	10	0.0	∓ 5.1	∓10.6	∓16.4	∓22.6	∓29.2	∓36.2	∓44.0	∓52.4	∓61.7	∓72.1
	20	0.0	∓ 5.3	∓10.9	∓16.9	∓23.3	∓30.2	∓37.5	∓45.6	∓54.4	∓64.0	∓75.1
	30	0.0	∓ 5.2	∓10.7	∓16.6	∓22.9	∓29.6	∓36.9	∓44.9	∓53.5	∓62.9	∓73.7
Juli	10	0.0	∓ 4.9	∓10.1	∓15.6	∓21.5	∓27.9	∓34.6	∓41.9	∓49.8	∓58.6	∓68.2
	20	0.0	∓ 4.4	∓ 9.1	∓14.0	∓19.4	∓25.0	∓31.0	∓37.4	∓44.5	∓52.0	∓60.3
	30	0.0	∓ 3.8	∓ 7.9	∓12.2	∓16.7	∓21.5	∓26.6	∓32.1	∓38.0	∓44.3	∓51.1
Aug.	9	0.0	∓ 3.2	∓ 6.5	∓10.1	∓13.9	∓17.8	∓22.0	∓26.5	∓31.2	∓36.2	∓41.6
	19	0.0	∓ 2.5	∓ 5.1	∓ 7.9	∓10.9	∓13.9	∓17.2	∓20.7	∓24.4	∓28.2	∓32.4
	29	0.0	∓ 1.8	∓ 3.7	∓ 5.8	∓ 7.9	∓10.1	∓12.4	∓14.9	∓17.6	∓20.4	∓23.3
Sept.	8	0.0	∓ 1.2	∓ 2.3	∓ 3.7	∓ 5.0	∓ 6.3	∓ 7.8	∓ 9.3	∓11.0	∓12.8	∓14.6
	18	0.0	∓ 0.5	∓ 0.9	∓ 1.6	∓ 2.1	∓ 2.6	∓ 3.2	∓ 3.8	∓ 4.6	∓ 5.3	∓ 6.0
	28	0.0	± 0.2	± 0.5	± 0.5	± 0.8	± 1.1	± 1.3	± 1.6	± 1.8	± 2.1	± 2.4
Okt.	8	0.0	± 0.9	± 1.8	± 2.7	± 3.7	± 4.8	± 5.9	± 7.0	± 8.2	± 9.5	±10.8
	18	0.0	± 1.6	± 3.2	± 4.8	± 6.6	± 8.5	±10.4	±12.5	±14.7	±17.0	±19.5
	28	0.0	± 2.2	± 4.6	± 6.9	± 9.5	±12.3	±15.1	±18.1	±21.3	±24.6	±28.3
Nov.	7	0.0	± 2.9	± 6.0	± 9.0	±12.5	±16.0	±19.8	±23.7	±27.9	±32.4	±37.4
	17	0.0	± 3.6	± 7.3	±11.1	±15.3	±19.6	±24.3	±29.3	±34.5	±40.1	±46.3
	27	0.0	± 4.1	± 8.4	±13.1	±17.8	±22.9	±28.4	±34.3	±40.6	±47.3	±54.7
Dez.	7	0.0	± 4.6	± 9.3	±14.5	±19.8	±25.5	±31.7	±38.2	±45.4	±53.1	±61.5
	17	0.0	± 4.8	± 9.8	±15.2	±20.9	±27.0	±33.5	±40.5	±48.2	±56.4	±65.5
	27	0.0	± 4.8	± 9.8	±15.2	±20.9	±27.0	±33.5	±40.5	±48.2	±56.4	±65.7
	37	0.0	± 4.6	± 9.3	±14.4	±19.8	±25.7	±31.9	±38.4	±45.5	±53.3	±61.7

Reduktionstafel

für den Auf- und Untergang des Mondes

Das obere Vorzeichen gilt für den Aufgang, das untere Vorzeichen für den Untergang

t *)	Geographische Breite										
	+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
h m	m	m	m	m	m	m	m	m	m	m	m
3 20	∓94.6	∓87.9	∓80.9	∓73.4	∓65.5	∓56.9	∓47.6	∓37.5	∓26.4	∓14.0	0.0
3 30	∓88.5	∓82.2	∓75.6	∓68.5	∓61.0	∓52.9	∓44.2	∓34.8	∓24.4	∓12.9	0.0
3 40	∓82.5	∓76.5	∓70.3	∓63.7	∓56.6	∓49.1	∓41.0	∓32.2	∓22.5	∓11.9	0.0
3 50	∓76.6	∓71.0	∓65.2	∓59.0	∓52.4	∓45.3	∓37.8	∓29.6	∓20.7	∓10.9	0.0
4 0	∓70.8	∓65.6	∓60.1	∓54.4	∓48.2	∓41.7	∓34.7	∓27.2	∓18.9	∓ 9.9	0.0
4 10	∓65.1	∓60.3	∓55.2	∓49.9	∓44.2	∓38.2	∓31.7	∓24.8	∓17.3	∓ 9.0	0.0
4 20	∓59.5	∓55.0	∓50.3	∓45.5	∓40.3	∓34.8	∓28.9	∓22.5	∓15.7	∓ 8.2	0.0
4 30	∓54.0	∓49.9	∓45.6	∓41.2	∓36.5	∓31.4	∓26.1	∓20.4	∓14.1	∓ 7.4	0.0
4 40	∓48.4	∓44.8	∓40.9	∓36.9	∓32.7	∓28.2	∓23.3	∓18.2	∓12.6	∓ 6.6	0.0
4 50	∓43.0	∓39.8	∓36.4	∓32.7	∓29.0	∓24.9	∓20.7	∓16.1	∓11.2	∓ 5.8	0.0
5 0	∓37.7	∓34.8	∓31.8	∓28.6	∓25.3	∓21.8	∓18.1	∓14.1	∓ 9.8	∓ 5.0	0.0
5 10	∓32.4	∓29.9	∓27.3	∓24.6	∓21.7	∓18.7	∓15.5	∓12.1	∓ 8.4	∓ 4.3	0.0
5 20	∓27.1	∓25.0	∓22.8	∓20.6	∓18.2	∓15.6	∓12.9	∓10.1	∓ 7.0	∓ 3.6	0.0
5 30	∓21.9	∓20.2	∓18.4	∓16.6	∓14.7	∓12.6	∓10.4	∓ 8.1	∓ 5.6	∓ 2.9	0.0
5 40	∓16.7	∓15.4	∓14.0	∓12.6	∓11.2	∓ 9.6	∓ 7.9	∓ 6.2	∓ 4.3	∓ 2.2	0.0
5 50	∓11.5	∓10.6	∓ 9.7	∓ 8.7	∓ 7.7	∓ 6.6	∓ 5.5	∓ 4.2	∓ 2.9	∓ 1.5	0.0
6 0	∓ 6.4	∓ 5.8	∓ 5.4	∓ 4.8	∓ 4.2	∓ 3.6	∓ 3.0	∓ 2.3	∓ 1.6	∓ 0.9	0.0
6 10	∓ 1.2	∓ 1.1	∓ 1.0	∓ 0.9	∓ 0.8	∓ 0.7	∓ 0.6	∓ 0.4	∓ 0.3	∓ 0.2	0.0
6 20	± 4.0	± 3.7	± 3.4	± 3.0	± 2.6	± 2.3	± 1.9	± 1.5	± 1.0	± 0.5	0.0
6 30	± 9.1	± 8.4	± 7.7	± 6.9	± 6.1	± 5.3	± 4.4	± 3.4	± 2.4	± 1.2	0.0
6 40	±14.3	±13.2	±12.0	±10.8	± 9.6	± 8.2	± 6.8	± 5.3	± 3.7	± 1.9	0.0
6 50	±19.5	±18.0	±16.4	±14.8	±13.1	±11.2	± 9.3	± 7.2	± 5.0	± 2.6	0.0
7 0	±24.7	±22.8	±20.9	±18.8	±16.6	±14.2	±11.8	± 9.1	± 6.3	± 3.3	0.0
7 10	±30.0	±27.7	±25.3	±22.8	±20.1	±17.3	±14.3	±11.1	± 7.7	± 4.0	0.0
7 20	±35.3	±32.6	±29.7	±26.8	±23.7	±20.3	±16.8	±13.1	± 9.1	± 4.7	0.0
7 30	±40.6	±37.5	±34.3	±30.9	±27.3	±23.4	±19.4	±15.1	±10.5	± 5.5	0.0
7 40	±45.9	±42.5	±38.9	±35.0	±31.0	±26.6	±22.1	±17.2	±12.0	± 6.2	0.0
7 50	±51.4	±47.6	±43.5	±39.2	±34.7	±29.9	±24.8	±19.3	±13.5	± 7.0	0.0
8 0	±56.9	±52.7	±48.2	±43.5	±38.5	±33.2	±27.6	±21.5	±15.0	± 7.8	0.0
8 10	±62.5	±57.9	±53.0	±47.9	±42.4	±36.6	±30.4	±23.8	±16.6	± 8.6	0.0
8 20	±68.2	±63.2	±57.9	±52.3	±46.4	±40.1	±33.3	±26.1	±18.2	± 9.5	0.0
8 30	±74.0	±68.5	±62.9	±56.9	±50.5	±43.7	±36.4	±28.5	±19.8	±10.5	0.0
8 40	±79.8	±74.0	±67.9	±61.5	±54.7	±47.3	±39.5	±30.9	±21.6	±11.4	0.0
8 50	±85.8	±79.6	±73.1	±66.3	±59.0	±51.1	±42.7	±33.5	±23.5	±12.5	0.0
9 0	±91.9	±85.3	±78.4	±71.2	±63.4	±55.0	±46.0	±36.3	±25.5	±13.5	0.0

*) *t* ist beim Aufgang der Zeitunterschied zwischen Aufgang und Kulmination, beim Untergang der Zeitunterschied zwischen Kulmination und Untergang.

Reduktionstafel

für den Auf- und Untergang des Mondes

Das obere Vorzeichen gilt für den Aufgang, das untere Vorzeichen für den Untergang

t *)	Geographische Breite										
	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
h m	m	m	m	m	m	m	m	m	m	m	m
3 20	0.0	±7.7	±16.1	±25.2	±35.1	±46.1	±58.4	±72.5	±89.1	±109.7	±138.1
3 30	0.0	±7.1	±14.7	±22.9	±31.8	±41.6	±52.4	±64.5	±78.3	± 94.5	±114.3
3 40	0.0	±6.5	±13.4	±20.9	±28.9	±37.6	±47.2	±57.7	±69.4	± 82.7	± 98.2
3 50	0.0	±5.9	±12.2	±19.0	±26.2	±34.0	±42.5	±51.7	±61.9	± 73.3	± 86.1
4 0	0.0	±5.4	±11.1	±17.2	±23.7	±30.8	±38.2	±46.3	±55.2	± 65.0	± 76.0
4 10	0.0	±4.9	±10.1	±15.6	±21.4	±27.7	±34.4	±41.6	±49.4	± 57.9	± 67.3
4 20	0.0	±4.5	± 9.1	±14.0	±19.2	±24.8	±30.8	±37.2	±44.0	± 51.5	± 59.6
4 30	0.0	±4.0	± 8.1	±12.5	±17.2	±22.2	±27.5	±33.1	±39.1	± 45.7	± 52.7
4 40	0.0	±3.5	± 7.3	±11.2	±15.3	±19.7	±24.3	±29.3	±34.5	± 40.2	± 46.3
4 50	0.0	±3.1	± 6.4	± 9.8	±13.4	±17.3	±21.4	±25.6	±30.2	± 35.1	± 40.4
5 0	0.0	±2.7	± 5.5	± 8.5	±11.6	±15.0	±18.5	±22.2	±26.1	± 30.3	± 34.8
5 10	0.0	±2.3	± 4.7	± 7.2	±10.0	±12.8	±15.7	±18.9	±22.2	± 25.7	± 29.5
5 20	0.0	±2.0	± 3.9	± 6.0	± 8.3	±10.7	±13.1	±15.7	±18.4	± 21.3	± 24.4
5 30	0.0	±1.6	± 3.2	± 4.8	± 6.7	± 8.5	±10.5	±12.6	±14.8	± 17.1	± 19.6
5 40	0.0	±1.2	± 2.4	± 3.7	± 5.0	± 6.5	± 7.9	± 9.5	±11.2	± 13.0	± 14.8
5 50	0.0	±0.8	± 1.7	± 2.6	± 3.4	± 4.4	± 5.5	± 6.5	± 7.7	± 8.9	± 10.2
6 0	0.0	±0.5	± 0.9	± 1.4	± 1.9	± 2.4	± 3.0	± 3.6	± 4.2	± 4.9	± 5.6
6 10	0.0	±0.1	± 0.2	± 0.2	± 0.4	± 0.5	± 0.6	± 0.7	± 0.8	± 0.9	± 1.1
6 20	0.0	∓0.3	∓ 0.6	∓ 0.9	∓ 1.2	∓ 1.5	∓ 1.9	∓ 2.3	∓ 2.6	∓ 3.0	∓ 3.5
6 30	0.0	∓0.6	∓ 1.3	∓ 2.0	∓ 2.7	∓ 3.5	∓ 4.3	∓ 5.2	∓ 6.0	∓ 7.0	∓ 8.0
6 40	0.0	∓1.0	∓ 2.1	∓ 3.1	∓ 4.3	∓ 5.5	∓ 6.8	∓ 8.1	∓ 9.5	∓ 11.0	∓ 12.6
6 50	0.0	∓1.3	∓ 2.9	∓ 4.3	∓ 5.9	∓ 7.5	∓ 9.4	∓11.2	∓13.1	∓ 15.1	∓ 17.3
7 0	0.0	∓1.7	∓ 3.6	∓ 5.5	∓ 7.5	∓ 9.6	∓11.9	∓14.3	∓16.7	∓ 19.3	∓ 22.2
7 10	0.0	∓2.1	∓ 4.4	∓ 6.7	∓ 9.2	∓11.7	∓14.5	∓17.4	∓20.4	∓ 23.7	∓ 27.1
7 20	0.0	∓2.5	∓ 5.1	∓ 7.9	∓10.8	∓13.8	∓17.1	∓20.6	∓24.2	∓ 28.1	∓ 32.3
7 30	0.0	∓2.9	∓ 6.0	∓ 9.2	∓12.6	∓16.1	∓19.9	∓24.0	∓28.2	∓ 32.8	∓ 37.7
7 40	0.0	∓3.3	∓ 6.9	∓10.6	∓14.4	∓18.5	∓22.9	∓27.5	∓32.4	∓ 37.8	∓ 43.4
7 50	0.0	∓3.8	∓ 7.7	∓12.0	∓16.3	∓21.0	∓25.9	∓31.3	∓36.9	∓ 43.0	∓ 49.6
8 0	0.0	∓4.2	∓ 8.7	∓13.4	∓18.3	∓23.7	∓29.2	∓35.3	∓41.7	∓ 48.7	∓ 56.3
8 10	0.0	∓4.7	∓ 9.6	∓14.9	∓20.4	∓26.4	∓32.6	∓39.5	∓46.8	∓ 54.8	∓ 63.5
8 20	0.0	∓5.2	∓10.6	∓16.4	∓22.6	∓29.2	∓36.3	∓44.0	∓52.3	∓ 61.5	∓ 71.6
8 30	0.0	∓5.7	∓11.7	∓18.1	∓25.0	∓32.4	∓40.4	∓49.1	∓58.6	∓ 69.1	∓ 81.0
8 40	0.0	∓6.3	∓12.9	∓19.9	∓27.6	∓35.8	∓44.9	∓54.9	∓65.7	∓ 77.9	∓ 92.1
8 50	0.0	∓6.8	∓14.1	∓21.9	∓30.5	∓39.7	∓49.8	∓61.2	∓73.8	∓ 88.5	∓106.1
9 0	0.0	∓7.4	∓15.4	∓24.1	∓33.7	∓44.1	∓55.3	∓68.4	∓83.6	∓101.4	∓125.9

*) *t* ist beim Aufgang der Zeitunterschied zwischen Aufgang und Kulmination, beim Untergang der Zeitunterschied zwischen Kulmination und Untergang.

Hilfstafeln

zur Berechnung der optischen Mondlibration

λ−☊	Δλ	α	B	λ−☊	λ−☊	Δλ	α	B	λ−☊
°	′		° ′	°	°	′		° ′	°
0	+0.0+	−0.0269+	−0 0.0+	180	45	+0.6+	−0.0190+	−1 5.3+	225
1	0.0	268	0 1.6	181	46	0.6	187	1 6.4	226
2	0.0	268	0 3.2	182	47	0.6	183	1 7.5	227
3	0.1	268	0 4.8	183	48	0.6	180	1 8.6	228
4	0.1	268	0 6.4	184	49	0.6	176	1 9.7	229
5	+0.1+	−0.0268+	−0 8.0+	185	50	+0.6+	−0.0173+	−1 10.7+	230
6	0.1	267	0 9.7	186	51	0.6	169	1 11.8	231
7	0.1	267	0 11.3	187	52	0.6	165	1 12.8	232
8	0.2	266	0 12.9	188	53	0.6	162	1 13.8	233
9	0.2	265	0 14.4	189	54	0.6	158	1 14.7	234
10	+0.2+	−0.0264+	−0 16.0+	190	55	+0.6+	−0.0154+	−1 15.6+	235
11	0.2	264	0 17.6	191	56	0.6	150	1 16.5	236
12	0.2	263	0 19.2	192	57	0.6	146	1 17.4	237
13	0.3	262	0 20.8	193	58	0.6	142	1 18.3	238
14	0.3	261	0 22.3	194	59	0.5	138	1 19.2	239
15	+0.3+	−0.0259+	−0 23.9+	195	60	+0.5+	−0.0134+	−1 20.0+	240
16	0.3	258	0 25.5	196	61	0.5	130	1 20.8	241
17	0.3	257	0 27.0	197	62	0.5	126	1 21.5	242
18	0.4	255	0 28.5	198	63	0.5	122	1 22.3	243
19	0.4	254	0 30.1	199	64	0.5	118	1 23.0	244
20	+0.4+	−0.0252+	−0 31.6+	200	65	+0.5+	−0.0114+	−1 23.7+	245
21	0.4	251	0 33.1	201	66	0.5	109	1 24.4	246
22	0.4	249	0 34.6	202	67	0.4	105	1 25.0	247
23	0.4	247	0 36.1	203	68	0.4	101	1 25.6	248
24	0.5	245	0 37.6	204	69	0.4	096	1 26.2	249
25	+0.5+	−0.0243+	−0 39.0+	205	70	+0.4+	−0.0092+	−1 26.8+	250
26	0.5	241	0 40.5	206	71	0.4	87	1 27.3	251
27	0.5	239	0 41.9	207	72	0.4	83	1 27.8	252
28	0.5	237	0 43.4	208	73	0.3	79	1 28.3	253
29	0.5	235	0 44.8	209	74	0.3	74	1 28.8	254
30	+0.5+	−0.0233+	−0 46.2+	210	75	+0.3+	−0.0070+	−1 29.2+	255
31	0.5	230	0 47.6	211	76	0.3	65	1 29.6	256
32	0.6	228	0 48.9	212	77	0.3	60	1 30.0	257
33	0.6	225	0 50.3	213	78	0.2	56	1 30.3	258
34	0.6	223	0 51.6	214	79	0.2	51	1 30.6	259
35	+0.6+	−0.0220+	−0 53.0+	215	80	+0.2+	−0.0047+	−1 30.9+	260
36	0.6	217	0 54.3	216	81	0.2	42	1 31.2	261
37	0.6	214	0 55.6	217	82	0.2	37	1 31.4	262
38	0.6	212	0 56.9	218	83	0.1	33	1 31.6	263
39	0.6	209	0 58.1	219	84	0.1	28	1 31.8	264
40	+0.6+	−0.0206+	−0 59.4+	220	85	+0.1+	−0.0023+	−1 32.0+	265
41	0.6	203	1 0.6	221	86	0.1	19	1 32.1	266
42	0.6	200	1 1.8	222	87	0.1	14	1 32.2	267
43	0.6	196	1 3.0	223	88	0.0	09	1 32.3	268
44	0.6	193	1 4.1	224	89	0.0	05	1 32.3	269
45	+0.6+	−0.0190+	−1 5.3+	225	90	+0.0+	−0.0000+	−1 32.3+	270

$$l' = \lambda + \Delta\lambda - a\,(B - \beta) - L_{☾}\,; \quad b' = B - \beta$$

l', b' = Optische Libration der Mondmitte in selenographischer Länge und Breite.

λ, β = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort.

$L_{☾}$ = Mittlere Länge des Mondes, ☊ = Mondknoten.

Hilfstafeln

zur Berechnung der optischen Mondlibration

λ−☊	Δλ	α	B	λ−☊	λ−☊	Δλ	α	B	λ−☊
°	′		° ′	°	°	′		° ′	°
90	−0.0 −	+0.0000 −	−1 32.3+	270	135	−0.6 −	+0.0190 −	−1 5.3+	315
91	0.0	05	1 32.3	271	136	0.6	193	1 4.1	316
92	0.0	09	1 32.3	272	137	0.6	196	1 3.0	317
93	0.1	14	1 32.2	273	138	0.6	200	1 1.8	318
94	0.1	19	1 32.1	274	139	0.6	203	1 0.6	319
95	−0.1 −	+0.0023 −	−1 32.0+	275	140	−0.6 −	+0.0206 −	−0 59.4+	320
96	0.1	28	1 31.8	276	141	0.6	209	0 58.1	321
97	0.1	33	1 31.6	277	142	0.6	212	0 56.9	322
98	0.2	37	1 31.4	278	143	0.6	214	0 55.6	323
99	0.2	42	1 31.2	279	144	0.6	217	0 54.3	324
100	−0.2 −	+0.0047 −	−1 30.9+	280	145	−0.6 −	+0.0220 −	−0 53.0+	325
101	0.2	51	1 30.6	281	146	0.6	223	0 51.6	326
102	0.2	56	1 30.3	282	147	0.6	225	0 50.3	327
103	0.3	60	1 30.0	283	148	0.6	228	0 48.9	328
104	0.3	65	1 29.6	284	149	0.5	230	0 47.6	329
105	−0.3 −	+0.0070 −	−1 29.2+	285	150	−0.5 −	+0.0233 −	−0 46.2+	330
106	0.3	74	1 28.8	286	151	0.5	235	0 44.8	331
107	0.3	79	1 28.3	287	152	0.5	237	0 43.4	332
108	0.4	83	1 27.8	288	153	0.5	239	0 41.9	333
109	0.4	87	1 27.3	289	154	0.5	241	0 40.5	334
110	−0.4 −	+0.0092 −	−1 26.8+	290	155	−0.5 −	+0.0243 −	−0 39.0+	335
111	0.4	096	1 26.2	291	156	0.5	245	0 37.6	336
112	0.4	101	1 25.6	292	157	0.4	247	0 36.1	337
113	0.4	105	1 25.0	293	158	0.4	249	0 34.6	338
114	0.5	109	1 24.4	294	159	0.4	251	0 33.1	339
115	−0.5 −	+0.0114 −	−1 23.7+	295	160	−0.4 −	+0.0252 −	−0 31.6+	340
116	0.5	118	1 23.0	296	161	0.4	254	0 30.1	341
117	0.5	122	1 22.3	297	162	0.4	255	0 28.5	342
118	0.5	126	1 21.5	298	163	0.3	257	0 27.0	343
119	0.5	130	1 20.8	299	164	0.3	258	0 25.5	344
120	−0.5 −	+0.0134 −	−1 20.0+	300	165	−0.3 −	+0.0259 −	−0 23.9+	345
121	0.5	138	1 19.2	301	166	0.3	261	0 22.3	346
122	0.6	142	1 18.3	302	167	0.3	262	0 20.8	347
123	0.6	146	1 17.4	303	168	0.2	263	0 19.2	348
124	0.6	150	1 16.5	304	169	0.2	264	0 17.6	349
125	−0.6 −	+0.0154 −	−1 15.6+	305	170	−0.2 −	+0.0264 −	−0 16.0+	350
126	0.6	158	1 14.7	306	171	0.2	265	0 14.4	351
127	0.6	162	1 13.8	307	172	0.2	266	0 12.9	352
128	0.6	165	1 12.8	308	173	0.1	267	0 11.3	353
129	0.6	169	1 11.8	309	174	0.1	267	0 9.7	354
130	−0.6 −	+0.0173 −	−1 10.7+	310	175	−0.1 −	+0.0268 −	−0 8.0+	355
131	0.6	176	1 9.7	311	176	0.1	268	0 6.4	356
132	0.6	180	1 8.6	312	177	0.1	268	0 4.8	357
133	0.6	183	1 7.5	313	178	0.0	268	0 3.2	358
134	0.6	187	1 6.4	314	179	0.0	268	0 1.6	359
135	−0.6 −	+0.0190 −	−1 5.3+	315	180	−0.0 −	+0.0269 −	−0 0.0+	360

$$l' = \lambda + \Delta\lambda - \alpha\,(B - \beta) - L_{☾}; \quad b' = B - \beta$$

l', b' = Optische Libration der Mondmitte in selenographischer Länge und Breite.

λ, β = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort.

$L_{☾}$ = Mittlere Länge des Mondes, ☊ = Mondknoten.

Koordinaten der Sternwarten

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich — östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Abastumani (Mt. Kanobili)	1700	+41 43	− 2 51	− 28.1	+41 32	9.999471
Abbadia	69	+43 22 52.2	+ 0 7 0.1	+ 1.15	+43 11 17.8	9.999317
Åbo	—	+60 26 56.8	− 1 29 6.30	− 14.64	+60 16 58.8	9.998894
Adelaide	41	−34 55 35.1	− 9 14 19.90	− 91.06	−34 44 42.7	9.999526
Albany (Neue Sternw.)[1]	40	+42 39 12.8	+ 4 55 7.12	+ 48.48	+42 27 39.7	9.999334
Algier (Neue Sternw.)[2]	345	+36 48 4.8	− 0 12 8.47	− 1.99	+36 36 58.1	9.999497
Allegheny (Neue Sternw.)	370	+40 28 58.1	+ 5 20 5.39	+ 52.59	+40 17 31.4	9.999411
Allegheny (Alte Sternw.)	349	+40 27 41.6	+ 5 20 2.97	+ 52.58	+40 16 15.0	9.999411
Amherst (Neue Sternw.)	110	+42 21 56.5	+ 4 50 5.98	+ 47.66	+42 10 24.0	9.999346
Ann Arbor	282	+42 16 48.7	+ 5 34 55.27	+ 55.02	+42 5 16.4	9.999360
Arcetri Zentr. d. Sternw.[3]	184	+43 45 14.4	− 0 45 1.30	− 7.39	+43 33 39.5	9.999316
Arequipa[4]	2451	−16 22 28.0	+ 4 46 11.73	+ 47.02	−16 16 12.7	0.000052
Armagh	64	+54 21 11	+ 0 26 35.48	+ 4.37	+54 10 11.4	9.999041
Athen	110	+37 58 15.5	− 1 34 52.2	− 15.58	+37 47 1.2	9.999456
Bamberg (Remeis-Sternw.)	288	+49 53 6.4	− 0 43 33.57	− 7.15	+49 41 40.3	9.999167
Barcelona[5]	415	+41 24 59.3	− 0 8 30.2	− 1.41	+41 13 29.4	9.999391
Bayreuth (Haus d. Erzieh.)	354	+49 56 46	− 0 46 18.4	− 7.61	+49 45 20	9.999170
Belgrad	250	+44 48 8	− 1 22 3.8	− 13.48	+44 36 32	9.999294
Bergedorf Mer.-Kr.	41	+53 28 46.9	− 0 40 57.74	− 6.73	+53 17 40.8	9.999060
Berkeley	94	+37 52 23.5	+ 8 9 2.91	+ 80.34	+37 41 9.8	9.999458
Berlin-Babelsberg[6]	82	+52 24 24.2	− 0 52 25.49	− 8.61	+52 13 11.1	9.999089
Berlin (Urania)[7]	47	+52 31 30.7	− 0 53 27.40	− 8.78	+52 20 18.3	9.999084
Bern (Astronom. Institut)	563	+46 57 12.7	− 0 29 42.88	− 4.88	+46 45 38.5	9.999260
Besançon	312	+47 14 59.0	− 0 23 57.1	− 3.93	+47 3 25.3	9.999236
Blaca	280	+43 17 37	− 1 6 8.0	− 10.86	+43 6 3	9.999334
Bloemfontein Filiale Obs. Univ. Michig.	1490	−29 5 45	− 1 44 57	− 17.24	−28 55 55	9.999758
Bloemfontein Boyden Stat. d. Harv. Obs.	1379	−29 12	− 1 45 57	− 17.40	−29 2	9.999748
Bogota	2640	+ 4 35 55.2	+ 4 56 19.51	+ 48.68	+ 4 34 4.4	0.000111
Bologna Zentr. d. Sternw.	84	+44 29 52.8	− 0 45 24.48	− 7.46	+44 18 17.3	9.999290
Bombay (Colaba)	19	+18 53 36.2	− 4 51 15.60	− 47.85	+18 46 31.1	9.999849
Bonn Zentr. d. Sternw.	62	+50 43 45.0	− 0 28 23.18	− 4.66	+50 32 22.7	9.999130
Bordeaux (Floirac)	73	+44 50 7.2	+ 0 2 6.56	+ 0.35	+44 38 31.6	9.999281
Bosque Alegre (Filiale v. Cordoba, Reflektor)	1250	−31 35 53	+ 4 18 11.2	+ 42.41	−31 25 33	9.999686
Boston (University)[8]	31	+42 20 58	+ 4 44 19.1	+ 46.71	+42 9 25.6	9.999341
Breslau Zentr. d. Sternw.	147	+51 6 56.5	− 1 8 8.72	− 11.19	+50 55 36.1	9.999126
Breslau Neue Sternw.[9]	117	+51 6 42.1	− 1 8 21.22	− 11.23	+50 55 21.7	9.999130
Brisbane	51	−27 28 23.0	−10 12 6.48	−100.55	−27 18 54.6	9.999694
Brüssel (Alte Sternw.) Pass.-Instr.	56	+50 51 10.7	− 0 17 28.71	− 2.87	+50 39 49.0	9.999126
Brüssel (Uccle) Mer.-Kr.	105	+50 47 54.6	− 0 17 26.05	− 2.86	+50 36 32.7	9.999131
Budapest Univ.-Sternw.	110	+47 29 34.7	− 1 16 15.4	− 12.53	+47 18 1.5	9.999215
Budapest-Svábhegy	470	+47 29 58.6	− 1 15 51.47	− 12.46	+47 18 25.4	9.999240

[1]) Dudley Observatory, seit Juni 1893. Alte Sternwarte 37″0 nördlich, 7ˢ10 östlich. — [2]) Alte Sternwarte 3″8 südlich, 8ˢ östlich. — [3]) Seit Oktober 1872, früher in Florenz. — [4]) 1927 geschlossen und nach Bloemfontein verlegt. — [5]) J. Comas Solá. — [6]) Die Koordinaten beziehen sich auf die Mitte der großen Kuppel, in der der große Refraktor aufgestellt ist. Die frühere Sternwarte in Berlin (seit 1835) lag 5′ 52″5 nördlich und 1ᵐ 9ˢ31 östlich. — [7]) Übungssternwarte der Universität. — [8]) Die alte Sternwarte lag 4ˢ1 östlich, 34″5 nördlich. — [9]) Geogr. Breite des Vertikalkreises, Länge des Durchgangsinstruments.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich — östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Budapest[1]	110	+47 28 49	—1 16 13.7	—12.53	+47 17 16	9.999215
Bukarest (Mil. Geogr. Inst.)	85	+44 24 34.2	—1 44 27.01	—17.16	+44 12 58.7	9.999292
Cambridge Engl.	28	+52 12 51.6	—0 0 22.75	— 0.06	+52 1 37.3	9.999090
Cambridge Mass.[2]	24	+42 22 47.6	+4 44 31.05	+46.74	+42 11 15.1	9.999340
Cap d. Guten Hoffnung	10	—33 56 6.8	—1 13 54.60	—12.14	—33 45 23.2	9.999547
Caracas (Observ. Cajigal)	1042	+10 30 24.3	+4 27 42.61	+43.98	+10 26 15.6	0.000023
Castel Gandolfo	—	+41 44 48	—0 50 36.4	— 8.31	+41 33 17	9.999354
Catania	47	+37 30 13.3	—1 0 20.60	— 9.91	+37 19 1.9	9.999466
Charkow	139	+50 0 9.9	—2 24 55.72	—23.81	+49 48 44.4	9.999153
Charlottenburg Techn. Hochsch.	60	+52 30 48.7	—0 53 20.5	— 8.76	+52 19 36.2	9.999085
Charlottesville[3]	259	+38 2 1.2	+5 14 5.33	+51.60	+37 50 46.5	9.999464
Christiania (Oslo) Mer.-Kr.	25	+59 54 43.7	—0 42 53.51	— 7.04	+59 44 39.2	9.998908
Cincinnati (Alte Sternw.)	—	+39 6 26.5	+5 37 59.09	+55.52	+38 55 6.0	9.999421
Cincinnati (Neue Sternw.)[4]	247	+39 8 19.8	+5 37 41.40	+55.47	+38 56 59.1	9.999437
Cleveland (Case Obs.)	215	+41 30 14.5	+5 26 25.86	+53.63	+41 18 44.3	9.999375
Coimbra	99	+40 12 24.5	+0 33 43.1	+ 5.54	+40 0 58.9	9.999400
Columbia Missouri[5]	225	+38 56 12	+6 9 18.37	+60.67	+38 44 52.3	9.999442
Cordoba	434	—31 25 15.5	+4 16 47.16	+42.18	—31 14 57.5	9.999635
Danzig (Naturf. Ges.)	30	+54 21 18.0	—1 14 39.6	—12.26	+54 10 18.4	9.999036
Danzig (Stadt. Sternw.)	30	+54 21 37.9	—1 14 36.5	—12.26	+54 10 38.3	9.999036
Delaware (Perkins Obs.)	270	+40 15 4	+5 32 13.33	+54.58	+40 3 38	9.999410
Denver[6]	1644	+39 40 36.4	+6 59 47.72	+68.96	+39 29 13.1	9.999519
Dorpat (Tartu, Jurjew) Mer.-Kr.	67	+58 22 47.2	—1 46 53.18	—17.56	+58 12 25.1	9.998946
Dresden (Geodät. Inst.)	168	+51 1 49.3	—0 54 55.1	— 9.02	+50 50 28.5	9.999130
Dresden (Mathem. Salon)	—	+51 3 14.7	—0 54 55.83	— 9.02	+50 51 54.0	9.999117
Dublin (Dunsink Obs.)	86	+53 23 13.1	+0 25 21.1	+ 4.17	+53 12 6.4	9.999065
Düsseldorf (Bilk)	46	+51 12 25.0	—0 27 2.69	— 4.44	+51 1 5.1	9.999117
Dunlap Obs. (Toronto)	244	+43 51 46	+5 17 41.3	+52.19	+43 40 11	9.999317
Durban	79	—29 50 46.6	—2 4 1.18	—20.37	—29 40 47.0	9.999645
Durham	108	+54 46 6.2	+0 6 19.75	+ 1.04	+54 35 9.8	9.999033
Edinburgh	146	+55 55 30	+0 12 44.1	+ 2.09	+55 44 43.5	9.999008
Edinburgh (Blackf. Hill)	134	+55 55 28.0	+0 12 44.0	+ 2.09	+55 44 41.5	9.999007
Evanston (Dearborn Obs.)[7]	175	+42 3 27.2	+5 50 41.8	+57.61	+41 51 55.4	9.999358
Faenza (Urania Lamonia)	45	+44 17 2	—0 47 33.9	— 7.81	+44 5 27	9.999293
Flagstaff (Lowell Obs.)	2210	+35 12 30.5	+7 26 44.6	+73.39	+35 1 35.8	9.999667
Florenz (Alte Sternw.)[8]	73	+43 46 4.1	—0 44 59.6	— 7.39	+43 34 29.2	9.999308
Florenz (Mil. Geogr. Inst.)	72	+43 46 49.4	—0 45 2.5	— 7.40	+43 35 14.5	9.999308
Frankfurt a. M.	121	+59 7 0	—0 34 36.3	— 5.70	+49 55 34.6	9.999149
Genf Mer.-Kr.	406	+46 11 59.3	—0 24 36.53	— 4.04	+46 0 24.1	9.999269
Genua (Mar.-Sternw.) Mer.-Kr.	108	+44 25 8.1	—0 35 41.28	— 5.86	+44 13 32.6	9.999294
Georgetown D. C.	62	+38 54 26.2	+5 8 18.33	+50.65	+38 43 6.7	9.999430
Glasgow Schottl.	55	+55 52 42.1	+0 17 10.55	+ 2.82	+55 41 55.2	9.999003

[1]) Observ. der Kgl. Josef-Technischen Hochschule. — [2]) Harvard College Observatory. — [3]) Leander McCormick Observatory, University of Virginia. — [4]) Mount Lookout seit 1873. — [5]) Laws Observatory. — [6]) University Park, Chamberlin Observatory. — [7]) Früher 6″.2 nördl., 0ˢ.5 westl. — [8]) 1872 nach Arcetri verlegt.

Koordinaten der Sternwarten

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich — östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Göttingen Mer.-Kr.	161	+51 31 48.2	—0 39 46.22	— 6.53	+51 20 30.0	9.999117
Gotha (Neue Sternw.) (Zentr. d. St.)[1]	322	+50 56 37.9	—0 42 50.51	— 7.04	+50 45 16.7	9.999142
Graz	375	+47 4 37.2	—1 1 47.71	—10.15	+46 53 3.2	9.999244
Greenwich Transit Circle	47	+51 28 38.2	0 0 0.00	0.00	+51 17 19.7	9.999110
Groningen	4	+53 13 13.8	—0 26 15.11	— 4.31	+53 2 6.0	9.999064
Grünwald[2]	599	+48 2 7	—0 46 6.55	— 7.58	+47 50 35	9.999235
Hamburg (Alte Sternw.) (Mer.-Kr.)[3]	25	+53 33 6.0	—0 39 53.60	— 6.55	+53 22 0.4	9.999057
Hamburg (D. Seewarte)	30	+53 32 51.8	—0 39 53.42	— 6.55	+53 21 46.2	9.999058
Hannover N. H.	183	+43 42 15.3	+4 49 8.00	+47.50	+43 30 40.5	9.999317
Haverford	116	+40 0 40.1	+5 1 12.7	+49.48	+39 49 15.4	9.999406
Heidelberg (Wolfs Sternw.)	126	+49 24 35	—0 34 48.4	— 5.72	+49 13 7	9.999159
Heidelberg (Königst.) Mer.-Kr.	570	+49 23 54.6	—0 34 53.13	— 5.73	+49 12 26.8	9.999198
Helsingfors Mer.-Kr.	33	+60 9 42.3	—1 39 49.10	—16.40	+59 59 40.8	9.998903
Helwan	115	+29 51 31.1	—2 5 21.77	—20.59	+29 41 31.4	9.999648
Herrsching (München)	534	+47 59 55	—0 44 43.6	— 7.35	+47 48 23	9.999231
Hongkong	33	+22 18 13.2	—7 36 41.25	—75.02	+22 10 5.8	9.999793
Hyderabad-Deccan[4]	554	+17 25 54.3	—5 13 48.98	—51.55	+17 19 17.7	9.999907
Innsbruck	605	+47 16 6.5	—0 45 31.42	— 7.48	+47 4 32.8	9.999254
Istanbul (Univ. Sternw.)	65	+41 0 45	—1 55 52	—19.03	+40 49 16	9.999377
Jena (Univers.) Zentr. d. St.	164	+50 55 35.6	—0 46 20.22	— 7.61	+50 44 14.3	9.999131
Jena (Winkler)	174	+50 56 15.7	—0 46 20.73	— 7.61	+50 44 54.5	9.999132
Johannesburg	1786	—26 10 52.1	—1 52 17.9	—18.45	—26 1 42.0	9.999839
Johannesburg (Fil. d. Yale Observ.)	1741	—26 11 14	—1 52 7	—18.42	—26 2 4	9.999836
Kairo	—	+30 4 38.2	—2 5 8.80	—20.56	+29 54 35.8	9.999635
Kalocsa[5]	102	+46 31 42.4	—1 15 54.34	—12.47	+46 20 7.6	9.999239
Karlsruhe[6]	110	+49 0 29.6	—0 33 35.40	— 5.52	+48 49 0.4	9.999177
Kasan (Univers.)	79	+55 47 24.3	—3 16 29.03	—32.28	+55 36 36.6	9.999007
Kasan (Engelhardt)	98	+55 50 20.5	—3 15 15.74	—32.08	+55 39 33.2	9.999007
Kew	10	+51 28 6	+0 1 15.1	+ 0.21	+51 16 47.5	9.999108
Kiel Neuer Mer.-Kr.	52	+54 20 27.6	—0 40 35.45	— 6.67	+54 9 27.9	9.999040
Kiel Alter Mer.-Kr.	47	+54 20 28.5	—0 40 35.57	— 6.67	+54 9 28.8	9.999040
Kiew Mer.-Kr.	184	+50 27 11.8	—2 2 0.56	—20.04	+50 15 48.3	9.999145
Kitab	658	+39 8 1.7	—4 27 31.7	—43.95	+38 56 41.0	9.999465
Kodaikanal	2343	+10 13 50	—5 9 52.0	—50.94	+10 9 47.6	0.000114
Königsberg Reps. Mer.-Kr.[7]	22	+54 42 50.6	—1 21 58.98	—13.47	+54 31 53.8	9.999029
Konstanz[8]	420	+47 39 43.6	—0 36 42.01	— 6.03	+47 28 10.7	9.999232
Kopenhagen (Neue Sternw.)[9]	14	+55 41 12.6	—0 50 18.69	— 8.26	+55 30 24.0	9.999005
Kopenhagen (Urania-Sternw.)	10	+55 41 19.2	—0 50 9.11	— 8.24	+55 30 30.6	9.999005
Krakau Mer.-Kr.	221	+50 3 51.9	—1 19 50.28	—13.11	+49 52 26.7	9.999158
Kremsmünster Mer.-Kr.	384	+48 3 23.1	—0 56 31.58	— 9.28	+47 51 51.1	9.999219

[1]) Seit 1857, früher Seeberg. — [2]) Privatsternwarte von Ph. Fauth. — [3]) 1909 nach Bergedorf verlegt. — [4]) Nizamiah Observatory. — [5]) Erzbischöfl. Haynaldsche Sternwarte. — [6]) 1896 nach Heidelberg verlegt. — [7]) Nach 1898, vor 1898 0.01 s westlich. — [8]) Privatsternwarte von E. Leiner. — [9]) Seit 1861 Nov. 11. Alte Sternwarte 2″3 südlich, 0.03 s westlich.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich — östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Kyoto (Astron. Inst.)	55	+35 1 37.1	−9 3 7.0	−89.22	+34 50 43.9	9.999525
Kyoto (Kwasan Observ.)	220	+34 59 40.3	−9 3 10.24	−89.23	+34 48 47.4	9.999537
Ladd Observ. (Providence)	69	+41 50 15.6	+4 45 35.95	+46.92	+41 38 44.4	9.999357
La Plata Mer.-Kr. Gautier	17	−34 54 30.3	+3 51 43.74	+38.07	−34 43 38.1	9.999525
Leiden (Neue Sternw.) Mer.-Kr. [1]	6	+52 9 19.8	−0 17 56.15	− 2.94	+51 58 5.2	9.999090
Leipzig (Neue Sternw.) Zentr. [2]	119	+51 20 5.9	−0 49 33.93	− 8.14	+51 8 46.7	9.999119
Lembang (Bosscha St.)	1300	− 6 49 29.1	−7 10 27.81	−70.71	− 6 46 45.5	0.000068
Lemberg (Univ.-Sternwarte)	330	+49 49 57.6	−1 36 7.13	−15.79	+49 38 31.4	9.999171
Lemberg (Techn. Hochsch.) Pass.-Instr.	340	+49 50 11.2	−1 36 3.40	−15.78	+49 38 45.0	9.999171
Leningrad (Petersburg) (Akad.)	20	+59 56 29.7	−2 1 13.35	−19.91	+59 46 25.5	9.998907
Leningrad (Petersburg) (Univers.)	4	+59 56 32.0	−2 1 11.3	−19.91	+59 46 27.8	9.998906
Lissabon (Tapada)	94	+38 42 30.5	+0 36 44.68	+ 6.04	+38 31 12.0	9.999437
Lissabon (Mar. Sternw.)	—	+38 42 17.6	+0 36 33.6	+ 6.01	+38 30 59.2	9.999431
Liverpool (Neue Sternw.)[3]	62	+53 24 4.8	+0 12 17.33	+ 2.02	+53 12 58.2	9.999063
London (Mill Hill) (Obs. of Univ.)	82	+51 36 46.3	+0 0 57.77	+ 0.16	+51 25 28.6	9.999109
Lourenço Marques	60	−25 58 5.5	−2 10 22.63	−21.42	−25 48 58.9	9.999725
Lübeck (Navig.-Sch.)	19	+53 51 31.1	−0 42 45.6	− 7.02	+53 40 27.8	9.999049
Lund Zentr. d. Sternw.	34	+55 41 51.6	−0 52 44.97	− 8.66	+55 31 3.1	9.999006
Lüttich Ougrée	128	+50 37 6	−0 22 12	− 3.65	+50 25 43	9.999137
Lyon	299	+45 41 40.8	−0 19 8.5	− 3.14	+45 30 5.3	9.999274
Madison (Washburn Obs.)	292	+43 4 36.8	+5 57 37.90	+58.75	+42 53 2.9	9.999340
Madras	7	+13 4 8.0	−5 20 59.65	−52.73	+12 59 2.5	9.999926
Madrid Zentr. d. Sternw.	656	+40 24 30.1	+0 14 45.09	+ 2.43	+40 13 3.7	9.999433
Mailand, Brera	120	+45 27 59.2	−0 36 45.89	− 6.04	+45 16 23.6	9.999268
Manila	3	+14 35 25	−8 3 50	−79.48	+14 29 47	9.999908
Mannheim Zentr. d. Sternw.	98	+49 29 11.0	−0 33 50.42	− 5.56	+49 17 43.5	9.999164
Marburg	248	+50 48 46.9	−0 35 4.9	− 5.76	+50 37 25.0	9.999141
Mare Island Calif.	18	+38 5 55.8	+8 9 5.63	+80.35	+37 54 40.8	9.999447
Markree (Col. Cooper)	45	+54 10 31.7	+0 33 48.4	+ 5.56	+53 59 30.7	9.999043
Marseille (Neue Sternw.) Mer.-Kr. [4]	75	+43 18 19.1	−0 21 34.56	− 3.54	+43 6 44.8	9.999320
McDonald Observatory (Fort Davis)	2070	+30 40 13	+6 56 6.3	+68.36	+30 30 4	9.999763
McMath-Hulbert Obs. (Lake Angelus)	296	+42 39 47.7	+5 33 3.3	+54.71	+42 28 14.5	9.999351
Melbourne	28	−37 49 53.4	−9 39 54.17	−95.26	−37 38 39.9	9.999454
Merate (Filiale von Mailand, Brera)	380	+45 41 54.1	−0 37 42.85	− 6.20	+45 30 18.6	9.999279
Meudon	162	+48 48 18	−0 8 55.5	− 1.46	+48 36 48	9.999185
Middletown, Conn.	70	+41 33 18	+4 50 38.2	+47.74	+41 21 47.6	9.999364
Mizusawa	61	+39 8 3.4	−9 24 31.46	−92.74	+38 56 42.7	9.999424
Modena	63	+44 38 52.8	−0 43 42.8	− 7.18	+44 27 17.2	9.999285
Montreal	57	+45 30 20	+4 54 18.63	+48.35	+45 18 44.4	9.999263
Mt. Hamilton (Lick Obs.) Mer.-Kr.	1283	+37 20 25.3	+8 6 34.86	+79.94	+37 9 14.9	9.999552

[1] Seit 1860. Alte Sternwarte 8″0 nördlich, 0ˢ42 östlich. — [2] Seit 1861. Alte Sternwarte 14″2 nördlich, 4ˢ00 westlich. — [3] Alte Sternwarte 44″0 nördlich, 17ˢ1 östlich. — [4] Seit 1866. Alte Sternwarte 30″1 südlich, 6ˢ2 westlich; Seehöhe 29 m.

Koordinaten der Sternwarten

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich — östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Mt. Wilson, Calif.	1742	+34 12 59.5	+7 52 14.33	+77.57	+34 2 13.3	9.999659
Moskau Mer.-Kr.	142	+55 45 19.5	−2 30 17.03	−24.69	+55 34 31.5	9.999012
Mundenheim[1])	—	+49 27 30	−0 33 44	− 5.54	+49 16 2	9.999158
München (West-Kuppel)..	529	+48 8 45.5	−0 46 26.02	− 7.63	+47 57 13.8	9.999227
Münster..............	75	+51 57 45.8	−0 30 29.66	− 5.01	+51 46 30.0	9.999100
Nashville (Vanderbilt Obs.)	174	+36 8 58.2	+5 47 12.81	+57.04	+35 57 56.1	9.999506
Neapel (Capo di Monte)...	154	+40 51 45.7	−0 57 1.40	− 9.37	+40 40 17.6	9.999387
Neuchâtel Refraktor.....	488	+46 59 49.5	−0 27 49.77	− 4.57	+46 48 15.4	9.999254
New Haven (Neue Stw.)[2])	40	+41 19 22.3	+4 51 40.58	+47.92	+41 7 52.7	9.999368
New York (Rutherfurd) ..	—	+40 43 48.5	+4 55 56.66	+48.62	+40 32 20.9	9.999380
New York (Columb. Obs.).	—	+40 45 23.1	+4 55 53.73	+48.61	+40 33 55.4	9.999379
Nikolajew Mer.-Kr.	55	+46 58 19.3	−2 7 53.98	−21.01	+46 46 45.1	9.999225
Nizza Kl. Mer.-Kr.[3]).....	378	+43 43 16.9	−0 29 12.15	− 4.79	+43 31 42.0	9.999330
Northfield (Goodsell Obs.)	290	+44 27 41.4	+6 12 35.84	+61.21	+44 16 5.9	9.999305
Oakland Californ.[4]) ...	99	+37 47	+8 8 48	+80.30	+37 35 47	9.999460
Oak Ridge (Filiale d. Harvard Obs.) .	183	+42 30 13	+4 46 14.2	+47.02	+42 18 40	9.999347
Odessa (Univ.-Stw.) Mer.-Kr.	55	+46 28 36.2	−2 3 2.05	−20.21	+46 17 1.3	9.999237
Odessa (Filiale Pulkowa)..	—	+46 28 36.0	−2 3 2.19	−20.21	+46 17 1.1	9.999234
Oslo (Christiania) Mer.-Kr..	25	+59 54 43.7	−0 42 53.51	− 7.04	+59 44 39.2	9.998908
Ottawa Mer.-Kr.	85	+45 23 39.1	+5 2 51.98	+49.75	+45 12 3.5	9.999267
Oxford (Radcl. Obs.)	65	+51 45 33.9	+0 5 3.0	+ 0.83	+51 34 17.0	9.999104
Oxford (Univers.)	64	+51 45 34.2	+0 5 0.4	+ 0.82	+51 34 17.3	9.999104
Oxford, Mississippi	140	+34 22 12.6	+5 58 7.18	+58.83	+34 11 25.1	9.999546
Padua	38	+45 24 1.9	−0 47 29.15	− 7.80	+45 12 26.3	9.999261
Palermo	72	+38 6 44.0	−0 53 25.87	− 8.78	+37 55 28.9	9.999451
Paris (Obs.nat.) Mer.Cassini	59	+48 50 11.2	−0 9 20.93	− 1.53	+48 38 41.5	9.999177
Paris (Montsouris) westl. Mer.	—	+48 49 18.0	−0 9 20.6	− 1.53	+48 37 48.2	9.999174
Peking	—	+39 54 23.0	−7 45 52.87	−76.53	+39 42 58.7	9.999401
Perkins Obs. (Delaware) .	270	+40 15 4	+5 32 13.33	+54.58	+40 3 38	9.999410
Perth, West-Austr.	60	−31 57 10.7	−7 43 21.62	−76.12	−31 46 46.9	9.999597
Petersburg (Leningrad) (Akademie) ...	20	+59 56 29.7	−2 1 13.35	−19.91	+59 46 25.5	9.998907
Petersburg (Leningrad) (Univers.) ...	4	+59 56 32.0	−2 1 11.3	−19.91	+59 46 27.8	9.998906
Philadelphia[5])	74	+39 58 2.1	+5 1 6.88	+49.47	+39 46 37.5	9.999404
Pic du Midi (Filiale v. Toulouse) ..	2850	+42 56 31.5	−0 0 34.29	− 0.09	+42 44 57.8	9.999518
Plonsk[6])	—	+52 37 40.0	−1 21 31.9	−13.39	+52 26 28.2	9.999078
Pola	32	+44 51 48.6	−0 55 23.07	− 9.10	+44 40 12.9	9.999277
Porto Alegre[7]) Mer.-Kr...	—	−30 1 51	+3 24 53.2	+33.66	−29 51 49	9.999636
Posen...............	85	+52 23 48.6	−1 7 30.60	−11.09	+52 12 35.4	9.999090
Potsdam (Astrophys. Obs.)	97	+52 22 56.0	− 0 52 15.86	− 8.59	+52 11 42.7	9.999091
Potsdam (Geod. Inst.) Turm	99	+52 22 54.8	− 0 52 16.11	− 8.59	+52 11 41.5	9.999091
Potsdam (Geod. Inst.) ... Östl. Meridianh.	99	+52 22 54	− 0 52 16.058	− 8.586	+52 11 41	9.999091

[1]) Dr. Max Mündler. — [2]) Yale University. Alte Sternwarte 45.″8 südlich, 1.s58 westlich. — [3]) Herr R. Bischofsheim. — [4]) Chabot Observatory. — [5]) Flower Obs. (Univ. of Pennsylvania). — [6]) Dr. Jedrzejewicz; 1898 nach Warschau verlegt. — [7]) Observatorio Regional do Rio Grande do Sul.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich — östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Poughkeepsie[1]........	61	+41 41 18	+ 4 55 35.2	+48.56	+41 29 47	9.999360
Prag (Obs. Andreasdorf)...	527	+49 54 38.1	− 0 59 8.08	− 9.71	+49 43 12.3	9.999182
Prag (Klementinum) Turm.	197	+50 5 16.0	− 0 57 40.29	− 9.47	+49 53 50.9	9.999155
Princeton N.J. (N.Stw.)[2]	75	+40 20 55.8	+ 4 58 39.44	+49.06	+40 9 29.7	9.999395
Providence (Ladd. Observ.)	69	+41 50 15.6	+ 4 45 35.95	+46.92	+41 38 44.4	9.999357
Pulkowa Zentr. d. Stw. ..	75	+59 46 18.5	− 2 1 18.57	−19.93	+59 36 12.3	9.998914
Pulsnitz[3])	284	+51 10 54.6	− 0 56 4.18	− 9.21	+50 59 34.6	9.999134
Quebec Canada	90	+46 47 59.2	+ 4 44 52.71	+46.80	+46 36 24.8	9.999231
Quito..................	2846	− 0 14 0	+ 5 13 58.20	+51.58	− 0 13 54	0.000194
Riga (Polytechnikum) Turm	—	+56 57 7	− 1 36 28.11	−15.84	+56 46 30	9.998974
Rio de Janeiro	63	−22 54 23.7	+ 2 52 41.52	+28.37	−22 46 6.0	9.999784
Rio de Janeiro (N. Stw.)	33	−22 53 42.1	+ 2 52 53.6	+28.40	−22 45 24.7	9.999782
Rom (Coll. Rom.) Mer.-Kr.	59	+41 53 53.6	− 0 49 55.36	− 8.19	+41 42 22.3	9.999354
Rom (Capitol) Mer.-Kr. ..	65	+41 53 33.2	− 0 49 56.34	− 8.20	+41 42 1.9	9.999355
Rom (Vatican) Mer.-Kr.[4]) .	100	+41 54 12.4	− 0 49 48.26	− 8.18	+41 42 41.1	9.999357
Rousdon	157	+50 42 38	+ 0 11 58.9	+ 1.96	+50 31 16	9.999137
Rugby	119	+52 22 30	+ 0 5 2.0	+ 0.83	+52 11 16.7	9.999093
St. Louis Missouri	—	+38 38 3.6	+ 6 0 49.15	+59.28	+38 26 45.5	9.999433
Saltsjöbaden (Stockholms Observator.)	55	+59 16 18	− 1 13 14	−12.03	+59 6 6	9.998924
San Fernando	30	+36 27 42.0	+ 0 24 49.30	+ 4.08	+36 16 37.7	9.999488
San Francisco[5])	—	+37 47 28.0	+ 8 9 42.81	+80.45	+37 36 14.8	9.999453
Santiago de Chile (N.St.)	580	−33 33 44.2	+ 4 42 46.0	+46.44	−33 23 4.1	9.999595
Santiago de Chile (A.St.)	619	−33 26 25.4	+ 4 42 36.9	+46.42	−33 15 46.4	9.999600
Sendai (Durchg.-Instr.) ..	36	+38 15 14.9	− 9 23 29.49	−92.57	+38 3 59.0	9.999444
Sétif..................	1120	+36 11 10	− 0 21 38.6	− 3.55	+36 0 7.7	9.999569
Simeïs	360	+44 24 11.6	− 2 15 59.38	−22.34	+44 12 36.1	9.999312
Sofia (Mil. Geogr. Inst.) ..	555	+42 41 51	− 1 33 19.87	−15.33	+42 30 18	9.999368
Sofia (Universitätssternwarte)	572	+42 41 1.7	− 1 33 23.3	−15.34	+42 29 28.5	9.999369
Sonneberg (Erbisbühl)...	640	+50 22 41.4	− 0 44 46.19	− 7.36	+50 11 17.5	9.999178
South Hadley	76	+42 15 18.2	+ 4 50 19	+47.69	+42 3 45.9	9.999346
Stalinabad (Tadjik Observ.)	—	+38 33 30	− 4 35 6.2	−45.19	+38 22 12	9.999434
Stará Dala[6]).........	113	+47 52 27.3	− 1 12 45.49	−11.95	+47 40 54.9	9.999206
Stockholm (A.St.)M.-Kr.[7])	44	+59 20 32.7	− 1 12 13.97	−11.86	+59 10 21.4	9.998922
Stonyhurst	116	+53 50 40.0	+ 0 9 52.7	+ 1.62	+53 39 36.5	9.999056
Straßburg (N.St.) M.-Kr.[8])	144	+48 35 0.4	− 0 31 4.53	− 5.10	+48 23 29.9	9.999190
Stuttgart (Schwab.Sternw.)	344	+48 47 0.7	− 0 36 47.39	− 6.04	+48 35 30.8	9.999198
Swarthmore (Sproul Obs.) Refraktor .	63	+39 54 16.2	+ 5 1 25.62	+49.52	+39 42 51.9	9.999405
Sydney	44	−33 51 41.1	−10 4 49.54	−99.36	−33 40 58.2	9.999551
Sydney (Riverview Coll. Obs.)	42	−33 49 45.7	−10 4 37.99	−99.33	−33 39 3.1	9.999552
Tacubaya[9])...........	2311	+19 24 17.9	+ 6 36 46.71	+65.18	+19 17 3.0	9.999997
Tartu (Dorpat, Jurjew) Mer.-Kr.	67	+58 22 47.2	− 1 46 53.19	−17.56	+58 12 25.1	9.998946

[1]) Vassar College. — [2]) Alte Sternwarte 2″.0 nördlich, $1^{s}.94$ östlich; 65^{m}. — [3]) Privatsternwarte des Herrn Classen. — [4]) 1933 nach Castel Gandolfo verlegt. — [5]) Davidson Observatory. — [6]) Früher O-Gyalla. — [7]) Neue Sternwarte seit 1931 in Saltsjöbaden. — [8]) Seit Anfang 1881. — [9]) Seit März 1883, früher in Chapultepec.

Koordinaten der Sternwarten

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich — östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Taschkent Mer.-Kr.	475	+41 19 31.6	− 4 37 10.88	−45.53	+41 8 2.0	9.999397
Teramo (Cerulli)	398	+42 39 27	− 0 54 55.8	− 9.02	+42 27 54	9.999358
Tokio Mer.-Kr.	57	+35 40 19	− 9 18 9.90	− 91.69	+35 29 21	9.999509
Toronto (Univ. Obs.) ...	110	+43 39 46.0	+ 5 17 34.70	+ 52.17	+43 28 11.2	9.999313
Toronto (Dunlap Obs.) ..	244	+43 51 46	+ 5 17 41.3	+ 52.19	+43 40 11	9.999317
Tortosa (Ebro-Stw.) M.-Kr.	54	+40 49 14	− 0 1 58	− 0.32	+40 37 46	9.999382
Toulouse Mer.-Kr.	195	+43 36 44.0	− 0 5 51.01	− 0.96	+43 25 9.3	9.999329
Triest (R. Oss. Astr.)	68	+45 38 35.5	− 0 55 4.92	− 9.05	+45 27 0.0	9.999259
Tsingtau (Met.-astr. Stat.).	—	+36 4 11.3	− 8 1 16.21	− 79.06	+35 53 9.8	9.999496
Tucson Arizona (Steward Obs.) .	757	+32 13 59.4	+ 7 23 47.68	+ 72.90	+32 3 32.6	9.999638
Turin Mer.-Kr.	276	+45 4 7.9	− 0 30 47.15	− 5.06	+44 52 32.2	9.999288
Turin (Pino Torinese)..	618	+45 2 16.3	− 0 31 6.52	− 5.11	+44 50 40.6	9.999312
Turku (Spiegelteleskop)...	28	+60 27 8.7	− 1 28 55.03	− 14.61	+60 17 10.7	9.998896
Upsala (N.Stw.) Pass.-Instr.	21	+59 51 29.4	− 1 10 30.13	− 11.58	+59 41 24.2	9.998909
Urbana Ill.	236	+40 6 20.2	+ 5 52 53.90	+ 57.97	+39 54 55.1	9.999412
Utrecht	12	+52 5 9.5	− 0 20 31.6	− 3.37	+51 53 54.4	9.999093
Valkenburg (IgnatiusColl.)	100	+50 52 29.3	− 0 23 19.91	− 3.83	+50 41 7.8	9.999129
Venedig	15	+45 26 10.5	− 0 49 22.12	− 8.11	+45 14 34.9	9.999261
Victoria B.C. (Domin.Obs.)	229	+48 31 15.7	+ 8 13 40.17	+ 81.18	+48 19 45.0	9.999197
Warschau[1]) Zentr. d. Stw.	121	+52 13 4.6	− 1 24 7.25	− 13.82	+52 1 50.3	9.999097
Warschau[2])	—	+52 13 10	− 1 24 4.8	− 13.81	+52 1 56	9.999088
Warschau (Techn. Hochsch.)	144	+52 13 21.0	− 1 24 2.4	− 13.81	+52 2 6.8	9.999098
Washington (Alte Stw.) .	31	+38 53 38.9	+ 5 8 12.13	+ 50.63	+38 42 19.4	9.999428
Washington (Neue Stw.) .	82	+38 55 14.0	+ 5 8 15.78	+ 50.64	+38 43 54.4	9.999431
Washington (Kath. Univ.)	—	+38 56 14.8	+ 5 8 0.0	+ 50.60	+38 44 55.1	9.999425
Wellington Transit Instr.[3])	127	−41 17 3.8	−11 39 4.27	−114.84	−41 5 34.3	9.999375
West Point N. Y. (N.St.)[4])	170	+41 23 22.1	+ 4 55 50.6	+ 48.60	+41 11 52.3	9.999375
Wien (Alte Sternw.)	167	+48 12 35.5	− 1 5 31.61	− 10.76	+48 1 3.9	9.999201
Wien (Josephstadt)[5])	214	+48 12 53.8	− 1 5 25.17	− 10.74	+48 1 22.2	9.999204
Wien (Neue Sternw.) Zentr.	240	+48 13 55.3	− 1 5 21.35	− 10.73	+48 2 23.8	9.999205
Wien (Ottakring)[6])	285	+48 12 46.7	− 1 5 10.97	− 10.71	+48 1 15.1	9.999209
Wien (Mil. Geogr. Inst.) ..	211	+48 12 40.5	− 1 5 26.24	− 10.75	+48 1 8.9	9.999203
Wien (Techn. Hochschule) .	198	+48 11 58.3	− 1 5 29.76	− 10.76	+48 0 26.7	9.999204
Wilhelmshaven Mer.-Kr..	9	+53 31 52.1	− 0 32 35.15	− 5.35	+53 20 46.4	9.999057
Williams-Bay Wisc.[7]) .	334	+42 34 12.6	+ 5 54 13.24	+ 58.19	+42 22 39.6	9.999356
Williamstown Mass. ...	213	+42 42 49	+ 4 52 53.5	+ 48.12	+42 31 16	9.999344
Wilna Pass.-Instr........	122	+54 40 59.1	− 1 41 8.76	− 16.61	+54 30 2.1	9.999036
Windhuk.............	1685	−22 35 26.6	− 1 8 15.07	− 11.21	−22 27 14.3	9.999901
Wolfersdorf	279	+50 47 20.0	− 0 46 50.94	− 7.70	+50 35 58.0	9.999143
Würzburg (Neue Univ.-Sternw. Zentr.) .	207	+49 47 19.0	− 0 39 44.71	− 6.53	+49 35 52.7	9.999163
Zô-sè China	100	+31 5 47.6	− 8 4 44.75	− 79.63	+30 55 33.2	9.999619
Zürich Meridian-Kreis ...	468	+47 22 38.3	− 0 34 12.3	− 5.62	+47 11 4.8	9.999242

[1]) Universitäts-Sternwarte. — [2]) Dr. Jedrzejewicz; seit 1898, früher in Plonsk. — [3]) Dominion Observatory. — [4]) Seit 1883. Alte Sternwarte 9″ nördlich, 1ˢ2 östlich. — [5]) von Oppolzers Sternwarte. — [6]) v. Kuffner. — [7]) Yerkes Observatory.

Normalzeit = Mittl. Ortszeit des Meridians	Bezeichnung	Staaten
östl. Gr. h m		
11 30	—	Neuseeland
10 0	Ostaustralische Z.	Viktoria, Neusüdwales, Queensland, Tasmanien, Neuguinea
9 30	Südaustralische Z.	Südaustralien
9 0	Mittl. Japan-Z.	Japan, Mandschukuo, Korea
8 0	Chinesische Küsten-Z.	Ostküste von China, Philippinen, Celebes, Westaustralien
7 30	Java-Zeit	Bali, Borneo, Java, Lombok
7 0	Südchinesische Küsten-Z.	Südküste von China, Franz. Indochina, Thailand
5 30	—	Indien, Ceylon
4 0	—	Europ. Rußland*) von 40° bis 52° 30′ östl. Länge
3 0	—	Europ. Rußland*) westl. von 40° östl. Länge
2 0	Osteuropäische Z.	Finnland, Bulgarien, Rumänien, Griechenland, Türkei, Palästina, Ägypten, Südafrika
1 0	Mitteleuropäische Z. (M. E. Z.)	Norwegen, Schweden, Dänemark, Deutschland, Ungarn, Schweiz, Italien, Tschechoslowakei, Jugoslawien
0 20	Amsterdamsche Zeit	Niederlande
h m		
0 0	Westeuropäische Z. (Greenwich-Z.)	Belgien, Frankreich, Großbritannien und Irland, Portugal, Spanien, Gibraltar, Algerien
westl. Gr. h m		
1 0	—	Island, Madeira, Kanarische Inseln
2 0	—	Azoren, Kapverdische Inseln, Grönland-Scoresbysund
3 0	—	Ostbrasilien, Grönland-Westküste und Angmagsalik, Argentinien (1. Nov.—Ende Febr.), Uruguay (Nov.—März)
3 30	—	Uruguay (April—Okt.)
4 0	Intercolonial St. Time	Mittelbrasilien, Argentinien (1. März—31. Okt.), Kanada (Küste), Paraguay, Chile, Bolivien
4 30	—	Venezuela
5 0	Eastern St. Time	Kanada (Quebec, Ontario zwischen 68° und 90° westl.), Verein. Staat. (Ostzone), Panama, Peru, Ekuador, Westbrasilien, Kolumbien
6 0	Central St. Time	Zentralzone von Kanada u. v. d. Verein. Staaten, Mexiko, mit Ausnahme des nördl. Teiles
7 0	Mountain St. Time	Gebirgszone von Kanada u. v. d. Verein. Staaten
8 0	Pacific St. Time	Vereinigte Staaten (pazifische Küste), Britisch-Kolumbien, nördl. Mexiko
9 0	—	Alaska östl. von 141° westl. Länge
10 0	—	Alaska zwischen 141° und 162° westl. Länge
10 30	—	Hawai (Sandwichinseln)
11 0	—	Alaska westl. von 162°, Aleuten, Samoa

*) Im Gebiet der Sowjetrepubliken sind alle Uhren 1 Stunde vorgestellt.

Besondere Erläuterungen zu den Angaben und zum Gebrauch des Jahrbuches

Das Jahrbuch gibt die Örter der *Planeten* in geozentrischen und in heliozentrischen Koordinaten. Die Zeitpunkte, für die sie gelten, sind in Weltzeit ausgedrückt, wenn nicht ausdrücklich eine andere Zeit angegeben wird. — **Weltzeit ist identisch mit Bürgerlicher Zeit Greenwich.** Der bürgerliche Tag beginnt um Mitternacht, die Weltzeit-Stunden sind von 0^h bis 24^h durchgezählt. Die Beziehung zu der bis zum Jahrgang 1924 (einschließlich) im Jahrbuch verwendeten Mittleren Zeit Greenwich besteht darin, daß der astronomische mittlere Tag erst am Mittag des bürgerlichen Tages, also 12^h nach dessen Anfang beginnt. Somit ist 1925 Jan. 1, 0^h Weltzeit gleich 1924 Dez. 31, 12^h Mittlere Zeit Greenwich.

Die Örter der *Fixsterne* sind gegeben als »Mittlere Sternörter«, bezogen auf das mittlere Äquinoktium des Jahresanfangs, und in Ephemeridenform als »Scheinbare Sternörter«, bezogen auf das instantane wahre Äquinoktium.

Zur Erläuterung ist im einzelnen folgendes zu bemerken:

Sonnenephemeride (S. 2—29 und 100—108).

Der erste Teil der Sonnenephemeride (S. 2—19) gibt auf den l i n k e n Seiten für 0^h Weltzeit an jedem Tage:

1) Die Zeitgleichung = Wahre Zeit *minus* Mittlere Zeit.

2) Die geozentrischen, äquatorialen Koordinaten α, δ des scheinbaren Sonnenorts, bezogen auf das jedesmalige wahre Äquinoktium, zugleich mit der ersten Differenzenreihe. Diese Angaben sind direkt mit den Beobachtungen vergleichbar. Die Nutationsglieder kurzer Periode sind, wie im Vorwort erwähnt, in den Koordinaten nicht enthalten.

3) Die halbe Durchgangsdauer (in Sternzeit) der Sonnenscheibe durch den Meridian.

4) Den geozentrischen Halbmesser der Sonnenscheibe, d. i. der Winkel, unter dem der Sonnenhalbmesser vom Erdmittelpunkt aus erscheint.

Die r e c h t e n Seiten geben:

1) Die Julianische Zeit, d. i. die Anzahl der seit Beginn der Julianischen Periode verflossenen mittleren Sonnentage.

2) Die Sternzeit für 0^h Weltzeit. In ihr sind, wie im Vorwort erwähnt, nur die langperiodischen Glieder der Nutation enthalten.

Um für einen Erdort der westlichen Längendifferenz $\Delta\lambda$ (in Stunden) gegen Greenwich die Sternzeit in seiner mittleren Mitternacht zu erhalten, ist zu diesen Angaben hinzuzulegen: $9^s.8565\,\Delta\lambda$. Diese Werte finden sich unter der Überschrift: »Korr. der Sternzeit« im Verzeichnis der Sternwarten.

3) Die Nutation in Rektaszension getrennt nach langperiodischen und kurzperiodischen Gliedern.

4) Die geozentrischen ekliptikalen Koordinaten λ, β der Sonne, bezogen auf das mittlere Äquinoktium des Jahresanfangs, sowie die Entfernung R der Erde von der Sonne. Diese Angaben finden bei Bahnberechnungen u. dergl. Verwendung.

5) Die bürgerlichen Ortszeiten des Aufgangs und Untergangs der Sonne für einen Ort des Nullmeridians in $+50°$ Breite; sie sind mit der Horizontalrefraktion 34′ berechnet und gelten für den oberen Rand der Sonne. Um daraus für einen beliebigen anderen Ort zwischen $+30°$ und $+60°$ geographischer Breite die entsprechenden Angaben zu erhalten, ist die Tabelle S. 368*, 369* zu benutzen.

Auf S. 20—28 folgen, bezogen auf das mittlere Äquinoktium des Jahresanfangs, die r e c h t w i n k l i g e n , geozentrischen, äquatorialen Sonnenkoordinaten für 0^h Weltzeit mit ihren ersten und zweiten Differenzen. Die gleichen Koordinaten, jedoch bezogen auf das Normaläquinoktium 1950.0, werden auf S. 100—108 gegeben.

Die Werte von X, Y, Z sind auf 6 Dezimalen gegeben. Die Ephemeriden bieten jedoch die Möglichkeit, die Sonnenkoordinaten auch auf 7 Dezimalen zu entnehmen. Zu diesem Zwecke füge man an die 6-stelligen Werte eine Null an und vereinige sie a l g e b r a i s c h mit den Werten von ΔX, ΔY, ΔZ. Ein ausführliches Beispiel hierfür ist im Jahrgang 1933, S. 362* gegeben.

Die gleichen Vorschriften gelten für die auf das Normaläquinoktium 1950.0 bezogenen Sonnenkoordinaten auf S. 100—108.

Am Fuß der Seite 28 finden sich die Zeiten für die Anfänge der Jahreszeiten und für die Erdnähe und Erdferne der Sonne.

Die Seite 29 enthält die Aberration, Parallaxe, mittlere Länge $L_\odot$ und mittlere Anomalie $M_\odot$ der Sonne im Intervall von je 10 Tagen.

Mondephemeride (S. 30—48).

Die Mondephemeride (S. 30—47) gibt auf den l i n k e n Seiten für 0^h Weltzeit.

1) Die scheinbare Rektaszension und Deklination des Mondmittelpunktes mit den ersten Differenzen.

2) Die Äquatorial-Horizontalparallaxe $p_☾$ des Mondes.

3) Den geozentrischen Mondhalbmesser $r_☾$, d. i. der Winkel, unter dem der Mondhalbmesser vom Erdmittelpunkt aus erscheint.

4) Die Länge und Breite des Mondes, abgekürzt auf 0°.001.

Die r e c h t e n Seiten enthalten:

1) Für den oberen Durchgang des Mondes durch den Meridian von Greenwich die genäherten Angaben für die Rektaszension, Deklination und Parallaxe des Mondmittelpunktes, sowie die bürgerliche Greenwicher Zeit dieses Durchgangs, nebst den Änderungen für 1^h westlicher Längendifferenz.

2) Die bürgerlichen Ortszeiten des Aufgangs und Untergangs des Mondes für einen Ort des Nullmeridians in $+50°$ Breite nebst Änderung für 1^h westlicher Längendifferenz; sie sind mit der Horizontalrefraktion 34′ berechnet und gelten für den oberen Rand des Mondes. Um daraus

für einen beliebigen anderen Ort zwischen +30° und +60° geographischer Breite die entsprechenden Angaben zu erhalten, ist die Tabelle S. 370*, 371* zu benutzen.

Seite 48 enthält die Zeitangaben für die Phasen, die Erdnähe und Erdferne des Mondes.

Ephemeriden der Großen Planeten (S. 49—99 und 109—112).

Die geozentrischen Örter der Planeten sind für Merkur, Venus, Mars, Jupiter, Saturn von Tag zu Tag, für Uranus und Neptun von 3 zu 3 Tagen für 0^h Weltzeit mit ihren ersten Differenzen gegeben. Für die Planeten Merkur bis Neptun sind scheinbare, auf das momentane wahre Äquinoktium bezogene Örter gegeben. Die letzte Spalte gibt die bürgerliche Zeit (Greenwich) der oberen Kulmination in Greenwich.

Die scheinbaren Halbmesser in der Einheit der Entfernung sind:

	″		″
Merkur	3.34	Saturn (äquat.)	83.33
Venus	8.41	» (polar)	74.57
Mars	4.68	Uranus	34.28
Jupiter (äquat.)	98.47	Neptun	36.56
» (polar)	91.91		

Die heliozentrischen Ephemeriden der Planeten (S. 109—112) geben den Log. des Radiusvector, die Länge, deren Reduktion auf die Bahn und die Breite bezogen auf das mittlere Äquinoktium 1950.

☊ und i stellen die Bahnlage für die Epoche 1950.0 und das Normaläquinoktium 1950.0 dar.

Die Genauigkeit und Ausführlichkeit dieser heliozentrischen Angaben sind ihrem Hauptzweck, zur Berechnung der speziellen Störungen zu dienen, angepaßt.

Die beigefügten Werte der Planetenmassen sind die den Tafeln von Newcomb und von Hill zugrunde liegenden. Für die Erde ist noch besonders zu erwähnen, daß die Masse von »Erde + Mond« gegeben ist, Radiusvector und heliozentrische Länge sich auf den Schwerpunkt des Systems »Erde + Mond« beziehen.

Mittlere Örter von 1535 Fixsternen (S. 2*—40*).

Die mittleren Örter der 1535 Fixsterne sind aus den Angaben des Dritten Fundamentalkatalogs des Berliner Astronomischen Jahrbuchs (I. Teil: Veröffentlichungen des *Astronomischen Rechen-Instituts* Nr. 54, II. Teil: Abhandlungen der *Preußischen Akademie der Wissenschaften* Jahrg. 1938, Phys. math. Klasse Nr. 3) abgeleitet worden. Die in Teil I durch ein † gekennzeichneten Sterne sind von 1944 ab weggelassen worden. Die in Teil II enthaltenen Zusatzsterne sind durch ihre Nummern, die alle über 1000 liegen, leicht zu erkennen. Die zusätzlichen Polsterne sind mit den griechischen Buchstaben α—π bezeichnet. Die Örter aller Polsterne sind durch trigonometrische Übertragung erhalten worden. Die jährlichen Veränderungen gelten für die Mitte des Jahres. Ein * vor dem Namen weist auf eine Anmerkung am Fuß der Seite hin.

Unter Gr. stehen die visuellen Größen, welche aus dem „Henry Draper Catalogue (Harvard Annals, Vol. 91—99)“ entnommen sind. Bei einigen weiten Doppelsternen ist an Stelle der im H. D. C. angegebenen Gesamthelligkeit die Helligkeit der hellen Komponente angeführt. Bei Veränderlichen sind die Grenzen der Helligkeit angegeben; beziehen sich diese auf photographische Größen, so sind sie durch kursiven Druck kenntlich gemacht.

Die Spektren sind aus dem Draper Katalog übernommen worden. Zusammengesetzte Spektren sind durch + gekennzeichnet. In anderen Fällen beziehen sich, wo 2 Spektren gegeben sind, diese auf die Komponenten eines Doppelsterns.

Scheinbare Örter von 584 Fixsternen (S. 41*—250*).

Die scheinbaren Rektaszensionen und Deklinationen der Fixsterne sind für den Moment der oberen Kulmination im Meridian von Greenwich gegeben.

Die Ephemeriden der 560 Sterne mit Deklinationen kleiner als 80°, deren scheinbare Örter von 10 zu 10 Sterntagen gegeben sind, enthalten die kurzperiodischen Mondglieder der Nutation nicht. Das Datum des Tages, an welchem zwei Kulminationen stattfinden, ist in kleinem Druck vor der Rektaszensionsspalte angeführt.

Die jährliche Parallaxe ist bei folgenden Sternen berücksichtigt, bei denen sie hinreichend verbürgt erscheint, nämlich:

				″
Nr. 10	ζ	Tucanae	mit	0.133
Nr. 11	β	Hydri	»	0.143
Nr. 59	τ	Ceti	»	0.298
Nr. 127	ε	Eridani	»	0.305
Nr. 257	α	Canis maj.	»	0.377
Nr. 291	α	Canis min.	»	0.291
Nr. 295	β	Geminor.	»	0.100
Nr. 445	β	Virginis	»	0.101
Nr. 470	β	Canum ven.	»	0.108
Nr. 492	β	Comae	»	0.121
Nr. 513	η	Bootis	»	0.112
Nr. 538	α	Centauri	mit	0.756
Nr. 667	μ	Herculis	»	0.109
Nr. 695	χ	Draconis	»	0.119
Nr. 699	α	Lyrae	»	0.121
Nr. 745	α	Aquilae	»	0.208
Nr. 754	δ	Pavonis	»	0.174
Nr. 793	61	Cygni	»	0.299
Nr. 805	γ	Pavonis	»	0.113
Nr. 867	α	Piscis austr.	»	0.135
Nr. 875	Br 3077	Cass.	»	0.146

Von den im B. J. nicht mit Ephemeriden versehenen Sternen des FK 3 besitzen noch folgende hinreichend verbürgte Parallaxen:

		″
Nr. 119	82 G. Eridani	0.159
Nr. 135	δ Eridani	0.112
Nr. 217	γ Leporis	0.122
Nr. 239	α Mensae	0.118
Nr. 825	ε Indi	0.288
Nr. 1019	96 G. Pisc.	0.148
Nr. 1030	μ Cassiop.	0.130
Nr. 1073	268. G. Ceti	0.147
Nr. 1093	κ Ceti	0.106
Nr. 1134	π^3 Orionis	0.128
Nr. 1300	61 Ursae maj.	0.109
Nr. 1307	Grb 1830 U Maj	0.108
Nr. 1345	61 Virginis	0.116
Nr. 1391	33 G. Librae	0.172

Die Ephemeriden der auf S. 2*—40* eingeklammerten Sterne findet man in «Apparent Places of Fundamental Stars». H. M. Stationary Office, London.

Es folgen die scheinbaren Örter von 20 Polsternen für jede obere Kulmination. Sie enthalten die kurzperiodischen Mondglieder nicht, jedoch sind deren Werte in besonderen Spalten gegeben.

Am Fuße der Ephemeriden ist der mittlere Ort eines jeden Sternes für den Anfang des Jahres und die Werte von sec δ und tg δ angegeben, welche bei der Reduktion der Meridianbeobachtungen nach der hierfür am zweckmäßigsten erscheinenden Besselschen Formel gebraucht werden. Ferner sind hier die Größen a, b, a', b' enthalten, mit deren Hilfe die Nutationsglieder kurzer Periode leicht berechnet werden können. Man erhält $A'a + B'b$ in Zeitsekunden, $A'a' + B'b'$ in Bogensekunden.

Auf den Seiten 241*—250* sind die rechtwinkligen Koordinaten der scheinbaren Örter von vier polnahen Sternen gegeben. Sie beziehen sich auf ein Koordinatensystem, dessen positive x-Achse nach dem Frühlingspunkt und dessen positive y-Achse nach dem Punkt $\alpha = 6^h$; $\delta = 0°$ gerichtet ist. Der Zusammenhang zwischen x, y und α, δ ist gegeben durch die Beziehungen: $x = \cos\delta \cos\alpha$, $y = \cos\delta \sin\alpha$. Die Angaben gelten für 12^h Sternzeit Greenwich und enthalten die kurzperiodischen Mondglieder der Nutation nicht, deren Werte jedoch in der letzten Spalte einer jeden Seite unter der Überschrift »Kurzperiod. Nutationsgl.« gegeben sind.

Als Quellen für die Koordinaten und Eigenbewegungen dieser vier Sterne sind benutzt worden:

für BD + 89°1: L. Courvoisier: Neue Position und Eigenbewegung des Polsterns BD + 89°1. Astron. Nachr. Bd. **273**, S. 87.

für BD + 89°3 und + 89°37: L. Courvoisier: Beobachtungen der Polsterne BD + 89°3 und BD + 89°37 am Vertikalkreis 1914—1926. Veröff. der Universitäts-Sternwarte zu Berlin-Babelsberg, Band XII, Heft 2.

für CPD — 89°38: Cape Annals Bd. **XI**, II, 244 für den Ort und eine briefliche Mitteilung für die Eigenbewegung.

Damit werden die mittleren Örter für 1947.0:

Name	Gr.	x	Jährl. Veränd. 1947.5	Jährl. Eigenbew.	y	Jährl. Veränd. 1947.5	Jährl. Eigenbew.
	m	″	″	″	″	″	″
BD+89° 1	10.56	— 420.02	—20.071	—0.011	+ 78.25	—0.106	—0.010
BD+89° 3	9.06	— 222.02	—20.242	—0.006	+863.28	—0.058	—0.006
BD+89° 37	10.06	—1201.41	—19.976	—0.011	—346.91	—0.256	+0.015
CPD—89° 38	9.5	+ 114.75	+20.139	+0.027	—307.15	+0.059	+0.031

Reduktionsgrößen (S. 252*—287*).

Auf die scheinbaren Örter der Sterne folgt S. 251* eine Zusammenstellung der Werte, mit welchen die Reduktionsgrößen der darauf folgenden Tafeln berechnet sind, und der Formeln für die Reduktion auf den scheinbaren Ort.

Die Größen zur »Reduktion auf den scheinbaren Ort« sind in ihrer *ersten* Form: A, B, C, D, E; A', B' gegeben für 12^h Sternzeit des Meridians von Greenwich:

1) Auf S. 270*—278* für jeden Sterntag. Hier sind die numerischen Werte von A, B, C und D mit ihren Differenzen gegeben und die kurzperiodischen Nutationsglieder A' und B' mit angeführt.

2) Auf S. 279* im Intervall von 10 Sterntagen.

Diese Tafel soll zur Berechnung von Sternephemeriden für die Epochen der Meridiandurchgänge dienen. Wegen ihrer logarithmischen Form und des großen Intervalls ist die Tafel zur Interpolation nicht geeignet. Man wird deshalb zweckmäßig die Interpolation erst nach der Summierung der einzelnen unmittelbar für die Epochen der Tafel berechneten Glieder vornehmen.

Beiden Tafeln ist in einer Spalte die dem festen Sternzeitmoment jedesmal entsprechende Weltzeit vorangestellt; man wird hiernach auf jeden beliebigen Zeitpunkt, gegeben durch Datum, Sternzeit und Längendifferenz gegen Greenwich, übergehen können. Eine weitere Spalte gibt die seit Beginn des annus fictus verflossene Zeit in Bruchteilen des tropischen Jahres.

Die Reduktionsgrößen der *zweiten* Form: f, log g, G, log h, H, log i und i, sowie f', g' und G' sind auf S. 252*—269* von Tag zu Tag für 0^h Weltzeit gegeben.

Auch hier findet sich eine Spalte, t überschrieben, welche die seit Beginn des annus fictus verflossene Zeit in Bruchteilen des tropischen Jahres gibt. Ferner ist die Sternzeit Greenwich für 0^h Weltzeit gegeben.

Die Seiten mit ungerader Seitenzahl enthalten außer den schon erwähnten f', g', G' noch folgende Größen:

a) ψ = Allgemeine Präzession seit Jahresanfang.
b) $\Delta\psi$ = Langperiodische Glieder der Nutation in Länge.
c) $\Delta\psi'$ = Kurzperiodische Glieder der Nutation in Länge.
d) ε = Mittlere Schiefe der Ekliptik.
e) $\Delta\varepsilon$ = Langperiodische Glieder der Nutation in Schiefe.
f) $\Delta\varepsilon'$ = Kurzperiodische Glieder der Nutation in Schiefe.
g) Die Koeffizienten j und k der Formeln auf S. 282*.

Die wahre Schiefe erhält man durch Addition der Gesamtnutation $(\Delta\varepsilon + \Delta\varepsilon')$ zu der mittleren Schiefe.

Auf S. 280* findet sich eine Tafel der Hilfsgrößen zur Berechnung der Präzession von verschiedenen mittleren Äquinoktien bis 1947.0

S. 281* enthält eine Tafel der Hilfsgrößen zur Übertragung der Polsternörter von verschiedenen mittleren Äquinoktien auf das mittlere Äquinoktium 1947.0.

Auf S. 282* sind die Formeln zusammengestellt, mit welchen bei Anschlußbeobachtungen die gemessenen Koordinatendifferenzen der

scheinbaren Örter in solche der mittleren Örter für den Jahresanfang übergeführt werden. Die in diesen Formeln auftretenden Koeffizienten j und k sind auf den Seiten 253*—269* enthalten und haben die Bedeutung

$$j = 15\, g \text{ arc } 1'$$
$$k = 15\, h \text{ arc } 1',$$

wobei g und h die auf den Seiten 252*—268* gegebenen Reduktionsgrößen sind.

S. 283* enthält eine Zusammenstellung der von der Deklination abhängenden Faktoren der Formeln auf S. 282*.

S. 284* enthält eine Tafel der numerischen Werte der Funktionen Sinus und Cosinus für in Zeit ausgedrückte Winkel. Ihre Benutzung erleichtert die Berechnung der Formeln auf S. 282*.

Die Seite 285* enthält eine Tafel zur Übertragung von Rektaszensions- und Deklinationsdifferenzen vom mittleren Äquinoktium 1947.0 auf das Normaläquinoktium 1950.0. Man findet die auf das Normaläquinoktium 1950.0 bezogene Koordinatendifferenz, indem man an der auf das mittlere Äquinoktium 1947.0 bezogene Rektaszensionsdifferenz die differentielle Präzession Δp^s_α und an der Deklinationsdifferenz die differentielle Präzession $\Delta p''_\delta$ anbringt:

$$\Delta p^s_\alpha = a_1 \text{ tg } \delta \cdot \Delta\alpha^m + a_2 \tfrac{1}{15} \sec^2\delta \cdot \Delta\delta',$$
$$\Delta p''_\delta = d_1 \cdot \Delta\alpha^m.$$

Die Koeffizienten a_1, a_2 und d_1 sind in der Tafel auf S. 285* enthalten und haben die Bedeutung:

$$a_1 = (n) \text{ arc } 1' \cos \alpha$$
$$a_2 = (n) \text{ arc } 1' \sin \alpha$$
$$d_1 = -15\ (n) \text{ arc } 1' \sin \alpha.$$

$\Delta\alpha^m$ und $\Delta\delta'$ sind die auf das mittlere Äquinoktium 1947.0 bezogenen Rektaszensions- und Deklinationsdifferenzen in Zeit- bez. Bogenminuten. Nach den angegebenen Formeln findet man die differentielle Präzession für Rektaszension in Zeitsekunden, diejenige für Deklination in Bogensekunden.

Die auf Seite 286* gegebenen Größen f, log g und G dienen zur Übertragung der Örter von dem *mittleren* Normaläquinoktium 1950.0 auf das jedesmalige *wahre* Äquinoktium. Die Berücksichtigung des Einflusses der Variatio saecularis bei dieser Übertragung ist durch die Tafeln auf S. 287* gegeben. Diese enthalten in der ersten Reihe einer jeden Vertikalspalte die Werte von 0.045 × Var. saec. für die mit den Argumenten α und δ gegebenen Örter. Die an zweiter Stelle stehenden Zahlen einer jeden Vertikalspalte sind die einjährigen Änderungen von 0.045 × Var. saec. und sind, wenn erforderlich, bei der Entnahme des Einflusses der Variatio saecularis für den in Frage kommenden Bruchteil des Jahres zu berücksichtigen.

Eine Tafel zur Übertragung von Sternörtern vom mittleren Äquinoktium 1947.0 auf das Normaläquinoktium 1950.0 befindet sich auf den Seiten 288*—290*.

Die hier tabulierten Größen sind gerechnet nach den Formeln:

$$A = (n^s) \sin a$$
$$D = (n'') \cos a$$
$$B = (m^s) - 0.00001818\,(n^s)^2 \sin 2a$$
$$\Delta C = \operatorname{arc} tg\, C - C;\quad C = A\, tg\, (\delta_{1947.0} + D)$$
$$P = -15\, tg\, \tfrac{1}{2}\psi;\quad tg\,\psi = \sin (n) \sin a\, tg\, (\delta_{1947.0} + D)$$
$$a = \alpha_{1947.0} + 90^\circ - (N)$$

Wegen der Größen (m), (n), (N) vgl. S. [5] der „Grundbegriffe der Sphärischen Astronomie" im Jahrbuch für 1916. Falls die auf S. 290* gegebene Tafel für ΔC und P nicht ausreicht, berechne man die Größen nach den vorstehend gegebenen Formeln oder benutze die weiterreichende Tafel in Veröff. d. Astronom. Rechen-Instituts Nr. 49.

Sonnen- und Mondfinsternisse (S. 292*—296*).

Bei der Berechnung der Finsternisse des Jahres 1947 sind die Örter von Sonne und Mond um folgende Beträge verbessert worden:

1947		Sonne: $\Delta\alpha$	$\Delta\delta$	Mond: $\Delta\alpha$	$\Delta\delta$
Mai	20	$+0^s.07$	$+0''.2$	$-0^s.10$	$-1''.5$
Juni	3	$+0.07$	$+0.1$	-0.11	-0.7
Nov.	12	$+0.07$	-0.3	-0.12	-0.4

Die bei den Sonnenfinsternissen gegebenen Besselschen Elemente dienen in der folgenden Weise zur Vorausberechnung der Phasenzeiten und der Positionswinkel der Kontakte:

Mit einer Ausgangszeit T (siehe weiter unten) entnimmt man der Elemententabelle die Werte:

x, y, log sin d, log cos d, μ, l ($l^{(a)}$ für äußere, $l^{(i)}$ für innere Berührung), log tang f ($f^{(a)}$ für äußere, $f^{(i)}$ für innere Berührung), x' und y'.

Mit ihnen rechnet man das folgende Formelsystem durch:

$$(1)\quad \left\{\begin{aligned} \xi &= c \cos\varphi \sin(\mu-\lambda) \\ \eta &= s \sin\varphi \cos d - c\cos\varphi \sin d \cos(\mu-\lambda) \\ \zeta &= s \sin\varphi \sin d + c \cos\varphi \cos d \cos(\mu-\lambda) \\ \xi' &= [7.6398-10]\; c \cos\varphi \cos(\mu-\lambda) \\ \eta' &= [7.6398-10]\; \xi \sin d, \end{aligned}\right.$$

worin φ die geographische Breite, λ die westliche Länge (von Greenwich) des Beobachtungsortes bezeichnen, s und c aus der Tafel auf S. 365* zu entnehmen sind.

Alsdann:

$$(2)\quad \left\{\begin{aligned} &\left.\begin{aligned} m \sin M &= x - \xi \\ m \cos M &= y - \eta \end{aligned}\right\} m > 0 \\ &\left.\begin{aligned} n \sin N &= x' - \xi' \\ n \cos N &= y' - \eta' \end{aligned}\right\} n > 0 \end{aligned}\right.$$

Nun berechnet man aus:

(3) $L = l - \zeta \tan f$

$L^{(a)}$ mit $l^{(a)}$ und $f^{(a)}$, $L^{(i)}$ mit $l^{(i)}$ und $f^{(i)}$; dann aus:

(4) $\sin \psi = \frac{m \sin (M - N)}{L}$ [1]

mit $L^{(a)}$ und $L^{(i)}$ je zwei Werte $\psi^{(a_1)}, \psi^{(a_2)}$ und $\psi^{(i_1)}, \psi^{(i_2)}$, von denen der eine zum Eintritt der Erde in den Halb- oder Kernschatten-Kegel, der andere zu ihrem Austritt aus ihm gehört. Diesen vier Werten $\psi^{(a_1)}, \psi^{(a_2)}$ und $\psi^{(i_1)}$, $\psi^{(i_2)}$ entsprechen vier Werte $\tau^{(a_1)}, \tau^{(a_2)}$ und $\tau^{(i_1)}, \tau^{(i_2)}$ (in Zeitminuten) nach

$$(5)\ \tau = -\frac{m \cos (M - N)}{n} + \frac{L \cos \psi}{n},$$

um welche die Ausgangszeit T zu verbessern ist, um die Zeit der gesuchten Phase zu erhalten. Ist T die gesuchte Phasenzeit, so wird $\tau = 0$ werden. Man muß daher das Formelsystem (1) bis (5) mit steigenden Näherungen so lange durchrechnen, bis dieser Fall eintritt, d. h. bis das Formelsystem sich schließt. Zu diesem Zweck beginnt man mit einem Näherungswert T_1, für den man, wenn kein besserer bekannt sein sollte, eine beliebige Zeit nahe der Mitte der Finsternis nehmen mag, und rechnet die erste genäherte Korrektion τ_1; dann wiederholt man die Rechnung mit $T_2 = T_1 + \tau_1$, dann mit $T_3 = T_2 + \tau_2 = T_1 + \tau_1 + \tau_2$ usf. bis sich $\tau_n = 0$ ergibt. T_n ist dann die gesuchte Weltzeit des Kontaktes, die durch Hinzufügung der Längendifferenz in mittlere Ortszeit zu verwandeln ist. Die Rechnung ist für jede Berührung gesondert durchzuführen.

Die Positionswinkel der einzelnen Phasen, in üblicher Weise vom Punkt größter Deklination nach Osten gezählt, folgen aus den Werten der letzten Näherung (Größen mit dem Index n) nach

$$P = N + \psi.$$

Will man den Winkelabstand Q vom Punkte der größten Höhe haben, so hat man von P noch den parallaktischen Winkel γ abzuziehen, der aus

$$\left.\begin{aligned} p \sin \gamma &= \xi \\ p \cos \gamma &= \eta \end{aligned}\right\} p > 0$$

folgt, also $\quad Q = P - \gamma.$

Um die Zeit der größten Phase, T_{max}, zu erhalten, hat man die beiden Formelsysteme (1) und (2) mit einem Näherungswerte T_1 durchzurechnen, daraus $T_2 = T_1 - \frac{m \cos (M - N)}{n}$ zu entnehmen und die Rechnung so lange fortzusetzen, bis die Korrektion der Ausgangszeit 0 wird. Als Näherungswert T_1 wählt man zweckmäßig das Mittel der beiden Werte von T_2 für die Berührungszeiten.

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[1] Wird der Winkel ψ bei der ersten Näherungsrechnung imaginär, so rechne man τ unter der Annahme $\psi = 90°$ aus $\tau = -\frac{m \cos (M-N)}{n}$; bleibt ψ auch in der weiteren Rechnung imaginär, so deutet dies an, daß an dem betreffenden Orte keine Sonnenfinsternis stattfindet.

Die Größe der Verfinsterung i, in Teilen des Sonnendurchmessers ausgedrückt, ergibt sich dann aus:

$$i = \frac{L^{(a)} - m}{2\,L^{(a)} - 0.5459}$$

worin $L^{(a)}$ und m die zur Zeit T_{max} gehörigen Werte bedeuten.

Mondbewegung und Lage des Mondäquators gegen den Erdäquator (S. 297*)

Auf S. 297* finden sich:

☊, Aufsteigender Knoten der Mondbahn auf der Ekliptik,
$L_☾$, Mittlere Länge des Mondes,
$\tilde{\omega}_☾$, Mittlere Länge des Perigäums,
$M_☾$, Mittlere Anomalie des Mondes,
i, Neigung des Mondäquators gegen den Erdäquator,
Δ, Stück des Mondäquators zwischen Ekliptik und Erdäquator,
☊′, Aufsteigender Knoten des Mondäquators auf dem Erdäquator.

☋, der aufsteigende Knoten des Mondäquators auf der Ekliptik ist gleich dem absteigenden Knoten der Mondbahn, also

$$☋ = ☊ \pm 180°.$$

Vom Jahrgang 1926 ab sind die Brownschen Mondtafeln verwendet.

Die Größen i, Δ und ☊′ berechnen sich aus:

$$\sin \tfrac{1}{2} (\Delta + ☊') \cos \tfrac{1}{2} i = \cos \tfrac{1}{2} (\varepsilon - J) \sin \tfrac{1}{2} ☋$$
$$\cos \tfrac{1}{2} (\Delta + ☊') \cos \tfrac{1}{2} i = \cos \tfrac{1}{2} (\varepsilon + J) \cos \tfrac{1}{2} ☋$$
$$\sin \tfrac{1}{2} (\Delta - ☊') \sin \tfrac{1}{2} i = \sin \tfrac{1}{2} (\varepsilon - J) \sin \tfrac{1}{2} ☋$$
$$\cos \tfrac{1}{2} (\Delta - ☊') \sin \tfrac{1}{2} i = \sin \tfrac{1}{2} (\varepsilon + J) \cos \tfrac{1}{2} ☋;$$

dabei ist J, die Neigung des Mondäquators gegen die Ekliptik, nach F. Hayn (Astr. Nachr. Bd. **199** S. 263) zu $J = 1° 32' 20''$ angenommen worden. Die Zahlen geben die Lage des mittleren Mondäquators (ohne physische Libration).

Die auf S. 297* gemachten Angaben über die Elemente der Mondbahn und des Mondäquators werden, teilweise in Verbindung mit den Größen $L_\odot$ und $M_\odot$ auf S. 29, zu verschiedenen Zwecken verwendet:

1) Als Argumente für die Berechnung der Reduktionsgrößen A, B, C, D, E, A', B'.

2) Bei Bestimmung der selenographischen Koordinaten von Punkten der Mondoberfläche.

3) Bei Berechnung der *optischen* und *physischen* Libration des Mondes.

a) Für die Berechnung der *optischen* Libration des Mondes sind alle nötigen Angaben in den Erläuterungen zu den Hilfstafeln unter Nr. 9 (S. 399*) gemacht.

b) Die Beträge der *physischen* Mondlibration in selenographischer Länge, der Neigung des Mondäquators und seinem aufsteigenden Knoten auf der Ekliptik τ, ρ, σ haben die Werte:

$$\tau = -\ 13'' \sin M_☾ + 65'' \sin M_\odot + 26'' \sin 2\,(L_☾ - M_☾ - ☊)$$
$$\rho = -\ 106'' \cos M_☾ + 34'' \cos (2\,L_☾ - M_☾ - 2☊) - 11'' \cos 2\,(L_☾ - ☊)$$
$$\sigma \sin J = -\ 108'' \sin M_☾ + 34'' \sin (2\,L_☾ - M_☾ - 2☊) - 11'' \sin 2\,(L_☾ - ☊)$$

Diese Zahlenangaben beruhen auf der Annahme $f = 0.73$, worüber F. Hayn (Astr. Nachr. Bd. **199**, S. 264) einzusehen ist.

Jupitertrabanten (S. 298*—299*).

Die Seiten 298* und 299* enthalten die Zeitangaben (in Weltzeit) für die Verfinsterungen der vier hellen Jupitertrabanten in dem Schattenkegel des Jupiter; Ein- und Austritte sind durch beigefügtes E. und A. unterschieden.

Saturnsring (S. 300*—301*, 304*).

Die Angaben für die scheinbare Größe des Saturn und für die Lage und Größe des Saturnsringes haben die folgende Bedeutung:

α Große Achse des Saturn.

β Kleine Achse des Saturn.

p_a Phase; positiv, wenn der Ostrand, negativ, wenn der Westrand verdunkelt ist.

a Große Achse der Ringellipse.

b Kleine Achse der Ringellipse; positiv, wenn die nördliche, negativ, wenn die südliche Fläche des Ringes sichtbar ist.

U' Heliozentrische Länge des Saturn, gezählt auf der Ringebene vom aufsteigenden Knoten des Ringes in der Ekliptik an.

B' Erhöhungswinkel der Sonne über der Ringebene vom Saturn aus gesehen; nördlich positiv, südlich negativ.

P' Winkel der kleinen Achse der Ringellipse mit dem durch den Saturnsmittelpunkt gehenden Längenkreise; östlich positiv, westlich negativ.

U Geozentrische Länge des Saturn, gezählt auf der Ringebene vom aufsteigenden Knoten des Ringes im Erdäquator an.

B Erhöhungswinkel der Erde über der Ringebene vom Saturn aus gesehen; nördlich positiv, südlich negativ.

P Winkel der kleinen Achse der Ringellipse mit dem durch den Saturnsmittelpunkt gehenden Stundenkreise; östlich positiv, westlich negativ.

N Aufsteigender Knoten der Ringebene im Erdäquator, gezählt vom Äquinoktium an.

J Neigung der Ringebene gegen den Erdäquator.

ω Entfernung der Ekliptik vom Erdäquator, gemessen auf der Ringebene.

Es liegen folgende Bestimmungen nach H. Struve zugrunde:

Durchmesser des Saturn in der Entfernung 9.53887

Äquatorial $17''.47$ Polar $15''.65$

Durchmesser des Ringes in der Entfernung 9.53887

$$2\,R = 39''.35$$

Lage des Saturnsringes gegen die Ekliptik und das Äquinoktium von 1889.25 nach G. Struve

$$\Omega_1 = 167^\circ\ 58'.08 \quad \text{und} \quad i_1 = 28^\circ\ 4'.55$$

Saturnstrabanten (S. 302*—311*).

Die Berechnungen der Saturnstrabanten Mimas bis Rhea sind mit den von G. Struve in den Veröffentlichungen der Universitätssternwarte Berlin-Babelsberg, Bd. VI, Heft 4 abgeleiteten Elementen durchgeführt worden. Für Titan und Japetus sind die von ihm in Bd. VI, Heft 5 angegebenen Elemente benutzt worden, und für Hyperion haben die von J. Woltjer in den Annalen der Sternwarte Leiden, Bd. 16, Teil 3 bestimmten Elemente als Grundlage gedient.

Die den Ephemeriden zugrunde liegenden Elemente sind:

MIMAS (Berlin-Bbg. VI, Heft 4)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$$E_0 = 127^\circ\ 5'.5$$
$$n = 381^\circ.994442$$
$$\delta l = -44^\circ.390 \sin [5^\circ.0864\ (\tau - 1866.27)]$$
$$-0^\circ.764 \sin 3\ [5^\circ.0864\ (\tau - 1866.27)]$$
$$l_1 = E_0 + nt_d + \delta l$$
$$\Theta = 56^\circ.1 - 365^\circ.23\ t$$
$$\gamma = 1^\circ\ 31'.0$$
$$\Pi_1 = 105^\circ.0 + 365^\circ.60\ t$$
$$e = 0.0201$$
$$a = 26''.826$$

ENCELADUS (Berlin-Bbg. VI, Heft 4)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$$E_0 = 199^\circ\ 25'.8$$
$$n = 262^\circ.7319405$$
$$\delta l = +14'.39 \sin (63^\circ.75 + 32^\circ.51\ t)$$
$$+14'.06 \sin (117^\circ.28 + 93^\circ.14\ t)$$
$$l_1 = E_0 + nt_d + \delta l$$
$$\Theta = 51^\circ.81 - 152^\circ.7\ t$$
$$\gamma = 1'.4$$
$$\Pi_1 = 308^\circ.38 + 123^\circ.43\ t$$
$$e = 0.00444$$
$$a = 34''.416$$

TETHYS (Berlin-Bbg. VI, Heft 4)
Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 284^\circ\ 28'.3$

$n = 190^\circ.697950$

$\delta l = +\ 2^\circ.065\ \sin\ [5^\circ.0864\ (\tau - 1866.27)]$
$\qquad + 0^\circ.036\ \sin\ 3\ [5^\circ.0864\ (\tau - 1866.27)]$

$l_1 = E_0 + nt_d + \delta l$

$\Theta = 110^\circ.39 - 72^\circ.25\ t$

$\gamma = 1^\circ\ 5'.56$

$e = 0.0000$

$a = 42''.605$

DIONE (Berlin-Bbg. VI, Heft 4)
Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 253^\circ\ 52'.0$

$n = 131^\circ.5349729$

$\delta l = -\ 0'.93\ \sin\ (\ 63^\circ.75 + 32^\circ.51\ t)$
$\qquad + 0'.91\ \sin\ (117^\circ.28 + 93^\circ.14\ t)$

$l_1 = E_0 + nt_d + \delta l$

$\Theta = 201^\circ.0 - 31^\circ.0\ t$

$\gamma = 1'.4$

$\Pi_1 = 173^\circ.4 + 30^\circ.75\ t$

$e = 0.00221$

$a = 54''.567$

RHEA (Berlin-Bbg. VI, Heft 4)
Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 358^\circ\ 23'.7$

$n = 79^\circ.6900881$

$l = E_0 + nt_d$

$(\Omega - \Omega_1)\ \sin i_1 = 20'.49\ \sin\ (344^\circ.09 - 10^\circ.20\,t) - 0'.38 + 1'.00\ \sin\ (48^\circ.5 - 0^\circ.50\,t)$

$i - i_1 = 20'.49\ \cos\ (344^\circ.09 - 10^\circ.20\,t) - 2'.79 + 1'.00\ \cos\ (48^\circ.5 - 0^\circ.50\,t)$

$\Pi = 275^\circ.85 + 0^\circ.53\ t + 17^\circ.64\ \sin\ [9^\circ.5\ (\tau - 1879.59)]$

$e = 0.00098 + 0.00030\ \cos\ [9^\circ.5\ (\tau - 1879.59)]$

$a = 76''.203$

Ω_1 und i_1 bezeichnen die Lage des Saturnsringes.

TITAN (Berlin-Bbg. VI, Heft 5)
Epoche: 1890 Jan. 0.0 Mittl. Zt. Grw.

$E_0 = 260^\circ\ 24'.26$

$n = 22^\circ.577015$

$l = E_0 + nt_d + (E-E_0)$
$E-E_0 = +\ 4'.39 \sin (40°.69 - 0°.506\, t)$
$☊ = 167°\ 51'.90 + 39'.00 \sin (40°.69 - 0°.506\, t)$
$i = 27°\ 26'.33 + 18'.35 \cos (40°.69 - 0°.506\, t)$
$\Pi = 276°\ 7'.7 + 31'.41\, t + 22'.0 (\sin 2\,g - \sin 2\,g_0)$
$e = 0.02910 + 0.000186 (\cos 2\,g_0 - \cos 2\,g)$
$g = \Pi - ☊ - 4°.5$
$g_0 = g$ für $t = 0$
$a = 176''.578$

HYPERION (J. Woltjer, Ann. Sternwarte Leiden Bd. XVI, 3, S. 64)
Anfangsepoche für t_d ; 1900 Januar 0.0 Mittl. Zt. Grw.
„ „ t : 1900.0
Argumente: $\sigma = 93°.13 + 0°.5620039\, t_d$ $\quad \tilde{\omega} = 148°.72 - 19°.184\, t$

$n = 16°.9199896$
$l = 176°.293 + 16°.9199896\, t_d + 9°.092 \sin \sigma + 0°.211 \sin (\tilde{\omega} + \sigma)$
$+ 0°.192 \sin (\tilde{\omega} - \sigma) - 0°.077 \sin \tilde{\omega}$
$\Pi = 70°.05 - 18°.6562\, t - 13°.67 \sin \tilde{\omega} + 0°.93 \sin 2\,\tilde{\omega} - 0°.47 \sin \sigma$
$e = 0.10419 + 0.02414 \cos \tilde{\omega} - 0.00401 \cos \sigma - 0.00183 \cos 2\,\tilde{\omega}$
$+ 0.00009 \cos (\tilde{\omega} - \sigma) - 0.00009 \cos (\tilde{\omega} + \sigma)$
$a = 214''.32 - 0''.74 \cos \sigma$
$\gamma \sin h = -0°.061 + 0°.574 \sin [-2°.392\, t + 95°.9]$
$+ 0°.315 \sin [-0°.500\, t + 42°.78]$
$\gamma \cos h = -0°.747 + 0°.574 \cos [-2°.392\, t + 95°.9]$
$+ 0°.315 \cos [-0°.500\, t + 42°.78]$

γ = Neigung der Bahnebene gegen den Saturnsäquator,
h = Länge des aufsteigenden Knotens auf dem Saturnsäquator, gezählt vom aufsteigenden Knoten des Saturnsäquators auf der Ekliptik.

JAPETUS (Berlin-Bbg. VI, Heft 5)
Epoche: 1885 Sept. 1.0 Mittl. Zt. Grw.

$E_0 = 75°\ 25'.61$
$n = 4°.537995$
$l = E_0 + nt_d$
$☊ = 142°\ 11'.3 - 1'.375\, t$
$i = 18°\ 26'.39 - 0'.54\, t$
$\Pi = 354°\ 27'.4 + 8'.1\, t$
$e = 0.02828$
$a = 514''.59$

Hierin bedeuten:
l_1, l = Mittlere Länge in der Bahn
n = Tropische mittlere tägliche Bewegung
δl = Libration
τ = Epoche

t_d = Anzahl der Tage seit der Anfangsepoche
t = Anzahl der Jahre seit der Anfangsepoche
Θ = Knoten auf dem Saturnsäquator
☊ = Knoten auf der Ekliptik
γ = Neigung der Trabantenbahn gegen den Saturnsäquator
i = Neigung der Trabantenbahn gegen die Ekliptik
Π_1, Π = Perisaturnium
e = Exzentrizität
a = Halbachse der Trabantenbahn in der mittleren Entfernung $(\varDelta) = 9.53887$.

l_1, Π_1 und Θ werden gezählt vom Äquinoktium aus in der Ekliptik weiter im Saturnsäquator und dann erst in der Trabantenbahn, l und Π vom Äquinoktium aus in der Ekliptik und weiter in der Trabantenbahn.

Auf den Seiten 302*—304* sind die Hilfsmittel gegeben, um in bequemer Weise die Positionen der Trabanten ableiten zu können. Sieht man hierbei von der Neigung γ ab, so erhält man die rechtwinkligen Koordinaten x und y des Trabanten in bezug auf ein Achsenkreuz, dessen Anfangspunkt im Mittelpunkt des Saturn gelegen ist, dessen X-Achse parallel der großen Achse des Ringes verläuft, positiv, wenn östlich, negativ, wenn westlich vom Saturn, und dessen positive Y-Achse mit dem durch den Saturnsmittelpunkt gehenden Stundenkreise den Winkel P einschließt, aus den Gleichungen:

$$x = \frac{a\,(\varDelta)}{\varDelta} \frac{1}{1+\zeta} \frac{r}{a} \sin\,(u-U)$$

$$y = \frac{a\,(\varDelta)}{\varDelta} \frac{1}{1+\zeta} \frac{r}{a} \sin\,B \cos\,(u-U).$$

$(\varDelta) = 9.53887$ bezeichnet den mittleren Wert der Entfernung Sonne—Saturn, $\varDelta$ ist die Entfernung Erde—Saturn, $u = L + (v - M)$ ist die wahre Länge des Trabanten vom Erdäquator an gezählt.

Die Größen $v-M$ und $\log \frac{r}{a}$ sind auf S. 312*—313* des Jahrbuchs 1933 gegeben, $\log \frac{1}{1+\zeta}$ ist auf S. 304* enthalten.

Ist genaueste Ortsbestimmung erforderlich, so darf man bei Mimas, Tethys und Rhea die Neigungen gegen den Saturnsäquator, da sie schon merklichere Werte annehmen, nicht mehr vernachlässigen; x und y ergeben sich dann aus:

$$x = \frac{a\,(\varDelta)}{\varDelta} \frac{1}{1+\zeta} \frac{r}{a} \sin\,(u-U)$$

$$y = \frac{a\,(\varDelta)}{\varDelta} \frac{1}{1+\zeta} \frac{r}{a} \sin B\,[\cos\,(u-U) + \sin\gamma \operatorname{cotg} B \sin\,(u-\vartheta)].$$

Die Werte von ϑ, der Länge des aufsteigenden Knotens der Trabantenbahn auf dem Saturnsäquator, gezählt vom Schnittpunkte des Saturnsäquators mit dem Erdäquator, finden sich für die fünf inneren Trabanten auf S. 304*; auch ist hier für Rhea γ, weil stärker mit der Zeit veränderlich, in Intervallen von 16 Tagen gegeben.

Will man aus x und y die Rektaszensions- und Deklinationsdifferenzen bestimmen, so dienen dazu die Gleichungen:

$$s \sin (p - P) = x$$
$$s \cos (p - P) = y$$
$$\Delta\alpha = \alpha_{tr} - \alpha_{pl} = \frac{1}{15} s \sin p \sec \delta_{tr}$$
$$\Delta\delta = \delta_{tr} - \delta_{pl} = s \cos p.$$

Auf den Seiten 305*—307* finden sich, außer den Hilfsgrößen U, B und P für die Trabanten Titan, Hyperion und Japetus die genäherten Rektaszensions- und Deklinationsunterschiede gegen den Saturn in dem Sinne Trabant minus Planet für die beiden letzteren Trabanten.

Die aus den Angaben des Berliner Jahrbuchs ermittelten Trabantenörter sind auf das mittlere Äquinoktium der Epoche bezogen.

Zum Schluß enthalten die Seiten 308*—311* die Zeitangaben (in Weltzeit) für die östlichen Elongationen von Mimas, Enceladus, Tethys, Dione, Rhea, ferner für die östlichen und westlichen Elongationen ($u - U = \pm 90°$) und für die oberen und unteren Konjunktionen ($u - U = 0°$, $180°$) von Titan, Hyperion und Japetus mit Saturn; diese Zeitangaben für die Elongationen und Konjunktionen sind bereits für Lichtzeit korrigiert, also ohne weiteres mit den Beobachtungen vergleichbar.

Konstellationen (S. 312*—313*).

In der Übersicht der Konstellationen des Jahres 1947 sind die hauptsächlichsten Planeten-Konstellationen gegeneinander und gegen Sonne und Mond, sowie die Angaben der Epochen, zu welchen sich die Planeten in gewissen Hauptpunkten ihrer Bahn und ihres synodischen Laufes befinden, zusammengestellt. Die Bedeutung der hier verwendeten Zeichen siehe Seite VIII des Vorworts. — Die Konjunktionen der Planeten mit dem Mond und ihre gegenseitigen sind als Konjunktionen in AR. zu verstehen, ebenso entsprechen die Angaben über Konjunktion und Opposition der Planeten mit der Sonne den Zeiten, zu denen der Rektaszensionsunterschied zwischen Planet und Sonne 0° oder 180° ist.

Auf- und Untergangszeiten der Sonne und des Mondes (S. 314*—349*)

Die für Orte auf dem Meridian von Greenwich und ausgewählte geographische Breiten zwischen —10° und +60° gegebenen mittleren Ortszeiten der Auf- und Untergänge von Sonne und Mond beziehen sich auf das Erscheinen bzw. Verschwinden des oberen Randes der Sonne oder des Mondes und sind mit der Horizontalrefraktion 34ʹ0 berechnet.

Hilfstafeln (S. 350*—373*).

Es folgt eine Reihe von häufig gebrauchten Hilfstafeln.

1) Tafeln für Präzessionswerte (S. 350*—352*).

a) Präzession in Länge und Breite (Seite 350*—351*).

$$p\lambda = \psi + \pi \operatorname{tg} \beta \cos (\Pi - \lambda)$$
$$p\beta = \pi \sin (\Pi - \lambda)$$

b) Präzession in Rektaszension und Deklination (Seite 352*).

$$p\alpha = m + \tfrac{1}{15}\, n \sin \alpha \operatorname{tg} \delta$$
$$p\delta = n \cos \alpha$$

c) Präzessionswerte m, n, ψ, π, Π und ε, die mittlere Schiefe der Ekliptik (Seite 352*).

Mit diesen Werten berechnet sich die Präzession für die Elemente einer Bahnebene im System der Ekliptik nach:

$$p_{\Omega} = \psi - \pi \operatorname{cotg} i \sin (\Pi - \Omega)$$
$$p_i = - \pi \cos (\Pi - \Omega)$$
$$p_\omega = \pi \operatorname{cosec} i \sin (\Pi - \Omega)$$

und im System des Äquators nach:

$$p_{\Omega'} = m - n \operatorname{cotg} i' \cos \Omega'$$
$$p_{i'} = - n \sin \Omega'$$
$$p_{\omega'} = n \cos \Omega' \operatorname{cosec} i'$$

Den Tafeln a) und b) liegen die Präzessionswerte für 1950.0 zugrunde. Über die Bedeutung der Bezeichnungen und die Zahlenwerte vergleiche die Erläuterungen zum Jahrbuch für 1916

2) Eine Tafel zur Verwandlung von Minuten und Sekunden in Dezimalteile des Grades und umgekehrt (S. 353*).

3) Hilfstafeln zur Verwandlung von mittlerer Zeit in Sternzeit (S. 354*, 356*) und von Sternzeit in mittlere Zeit (S. 355*, 357*).

4) Eine Tafel zur Verwandlung von Stunden, Minuten und Sekunden in Dezimalteile des Tages und umgekehrt (S. 358*—359*).

5) Eine Tafel für die Ermittelung eines Datums in der Julianischen Periode (Seite 360*—364*). Die Tafel besteht aus zwei Teilen. Der erste Teil (S. 360*—361*) gibt in vierjährigen Schaltperioden für die Jahre 0 bis 2000 die Anzahl der am 0. Januar, 12^h Weltzeit, seit Anfang der Julianischen Periode verflossenen Tage. Als Ergänzung gibt die Hilfstafel am Fuß der Seite die Anzahl der am 0. eines jeden Monats, 12^h Weltzeit, seit Beginn der Schaltperiode verflossenen Tage. Man gehe bis zum 4. Oktober des Jahres 1582 mit dem Datum des Julianischen, für spätere Jahre mit dem Datum des Gregorianischen Kalenders in die Tafel ein. Der zweite Teil (S. 362*—364*) gibt für die Jahre 1860—1979 unmittelbar die Anzahl der im Gregorianischen Kalender am 0. eines jeden Monats, 12^h Weltzeit, seit Beginn der Julianischen Periode verflossenen Tage.

6) Eine Tafel der Hilfsgrößen s und c (S. 365*) zur Berechnung der geozentrischen Breite φ' und der geozentrischen Entfernung ρ eines Erdortes, ausgedrückt in Einheiten der großen Halbachse des Erdellipsoids, aus der geographischen Breite φ nach den Formeln:

$$\varrho \sin \varphi' = s \sin \varphi$$
$$\varrho \cos \varphi' = c \cos \varphi$$

Darin haben s und c die Bedeutung:

$$s = \frac{1 - e^2}{\sqrt{1 - e^2 \sin^2 \varphi}}, \quad c = \frac{1}{\sqrt{1 - e^2 \sin^2 \varphi}}, \quad e = \sqrt{2\,\mathfrak{a} - \mathfrak{a}^2}.$$

Gemäß den Beschlüssen der Pariser Ephemeridenkonferenz von 1911 ist dabei die Abplattung $\mathfrak{a} = \frac{1}{297}$ angenommen.

7) Tafel des halben Tagbogens (S. 366*—367*), berechnet mit der Horizontalrefraktion 34'.9 für geographische Breiten von +30° bis +60° und Deklinationen von —30° bis +30°.

8) Reduktionstafeln für die Auf- und Untergangszeiten der Sonne und des Mondes (S. 368* bis 371*). Sie geben die Reduktion der für +50° Breite gültigen Zeiten, wie sie in den Ephemeriden auf S. 3—19 bzw. S. 31—47 enthalten sind, auf geographische Breiten zwischen +30° und +60° und sind für das Erscheinen oder Verschwinden des oberen Gestirnsrandes gerechnet.

9) Die Tafel zur Berechnung der optischen Mondlibration (S. 372*—373*) gibt mit dem Argument $\lambda - ☊$ die Werte $\Delta\lambda$, a und B entsprechend den Gleichungen:

$$\Delta\lambda = \frac{1}{\text{arc } 1'} \operatorname{tang}^2 \frac{1}{2} J \sin 2 (\lambda - ☊)$$
$$a = -\cos(\lambda - ☊) \sin J$$
$$\operatorname{tang} B = -\sin(\lambda - ☊) \operatorname{tang} J$$

J = Neigung des Mondäquators gegen die Ekliptik.

☊ = Länge des aufsteigenden Knotens der Mondbahn auf der Ekliptik (s. S. 297*).

λ, β = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort.

Bezeichnen noch $L_{☾}$ die mittlere Länge des Mondes, l' und b' die optische Libration der Mondmitte in selenographischer Länge und Breite, so ist:

$$l' = \lambda - L_{☾} + \Delta\lambda - a(B - \beta)$$
$$b' = B - \beta$$

Der Winkel C, welchen der Mondmeridian des Mittelpunktes der scheinbaren Mondscheibe mit dem Stundenkreise bildet, ergibt sich aus der Gleichung:

$$\sin C = -\sin i \frac{\cos(L_{☾} + l' + \Delta - ☋)}{\cos \delta_{☾}} = -\sin i \frac{\cos(\alpha_{☾} - ☊')}{\cos b'},$$

worin $\alpha_{☾}$, $\delta_{☾}$ Rektaszension und Deklination des Mondmittelpunktes gesehen vom Beobachtungsort aus, bezeichnen; die anderen vorkommenden Größen i, Δ, ☋ und ☊′ haben schon auf S. 391* ihre Erklärung gefunden.

Koordinaten der Sternwarten (S. 374*—380*).

Die Seiten 374* —380* enthalten die geographischen und geozentrischen Koordinaten der Sternwarten.

Die Seehöhen sind in allen Fällen angegeben, wo sie sich einigermaßen sicher ermitteln ließen.

Die geographischen Längen sind auf den Meridian von Greenwich bezogen und dem entsprechend ist die »Korrektion der Sternzeit« die Differenz: Orts-Sternzeit in mittlerer Mitternacht minus Greenwicher Sternzeit in mittlerer Mitternacht.

Die geozentrischen Koordinaten sind den Beschlüssen der Pariser Ephemeridenkonferenz vom Oktober 1911 gemäß unter Annahme der Abplattung 1 : 297 berechnet.

Bei Berechnung von log ϱ ist die Seehöhe berücksichtigt.

Normalzeiten der wichtigeren Länder (S. 381*).

Auf S. 381* sind die in den wichtigeren Ländern eingeführten Normalzeiten zusammengestellt.

Berichtigungen.

Jahrbuch 1947, S. 89*, Stern 307) 27 Lyncis. Die Rektaszensionen sind um folgende Beträge zu verbessern:

								s
Von 1947	Jan.	1	bis	Febr.	19	um		+0.003
„	März	1	„	Juli	19	„		+0.004
„	Juli	29	„	Okt.	17	„		+0.005
„	Okt.	27	„	Dez.	36	„		+0.006

Die ersten Differenzen sind entsprechend zu ändern.

S. 184*, Rektaszension von α Ursae minoris:

			s		s
1947 April	1	statt	23.98	lies	23.97
	2	„	23.71	„	23.68
	3	„	23.46	„	23.41
	4	„	23.24	„	23.16
	5	„	23.04	„	22.95
	6	„	22.83	„	22.75
	7	„	22.63	„	22.58
	8	„	22.46	„	22.43
	9	„	22.32	„	22.30

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